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ABSTRACT

This guide is designed to enable the beginner, as well as the advanced user, to understand and use the Computerized Placement Management Software (CPMS). The CPMS is a system for evaluating information about students and recommending their placement into courses best suited for them. It also tracks their progress and maintains their records. The system is designed primarily for incoming students, and is a component of the ACCUPLACER system for managing student information. The specification of the criteria for course placement is up to the user, allowing control over the variables used to recommend students for courses. Placement is based on test scores, background information, supplementary information such as high school record, and intended major field of study. The menu-driven system is designed to run on IBM or compatible microcomputers. A system overview and tutorial are provided in addition to information on system installation and operation, placement rules, system backup procedures, and problems and error messages. A glossary and an appendix provide additional details about system use. (SLD)

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ED339706

COMPUTERIZED PLACEMENT MANAGEMENT SOFTWARE

USER MANUAL

Version 3.0

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COMPUTERIZED PLACEMENT MANAGEMENT SOFTWARE is a component of the ACCUPLACER™ System.

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COMPUTERIZED PLACEMENT MANAGEMENT SOFTWARE

CPMS

Version 3.0

USER MANUAL

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July 1990

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HOW TO USE THIS MANUAL

This manual is designed to enable the beginner, as well as the advanced user, to understand and use the Computerized Placement Management Software (CPMS). Please note the following features:

- The ☐ symbol indicates steps to be followed or a list of items. You can also use these symbols as check-off boxes as you complete each step.
- The ☞ symbol is used to specify important points or to give additional information. The ☛ symbol is used for very important points. You should always read these carefully.
- Items in the text appearing in square brackets, such as [ENTER] or [Esc], refer to keys on the keyboard. They also appear this way on the screen displays. Arrow keys: ←,↑,→,↓ do not appear in brackets.
- Text in **bold** is the name of a screen item or is used for emphasis. Highlighted screen items often appear in bold in this manual.
- Items in ***italics*** are used to show what to type on the keyboard.
- "Directory" and "subdirectory" are often used interchangeably.
- In this manual,reference is made to the [ENTER] key. On some keyboards it is called the [RETURN] key.
- This manual refers to "function keys." Pressing such a key normally accomplishes a particular task. For example, pressing the [F10] function key is always required to save a student record that you have added or modified. Function keys on most keyboards are called **F1**, **F2**, etc.
- The instructions are detailed at the start of the **SYSTEM OPERATION** chapter on page 33. As that chapter proceeds, they become less detailed because you will have become more familiar with the system.
- Some keyboard entries include a backslash: \ . Be sure to use \ , not /.
- The entry of DOS commands can be in uppercase, lowercase, or both. *BACKUP*, *backup*, or even *BaCkUp* are all OK.
- Use the **GLOSSARY** on page 105 to obtain the definitions of words you may not understand.

> Items appearing on your computer screen will normally be shown in a frame like this. The contents of the frame will essentially match what is displayed on your screen. Messages displayed by CPMS are discussed separately in the narrative, often where a ☞ appears.

Read the **SYSTEM OPERATION** chapter from the beginning because much detail is presented at the beginning but not later. This keeps the manual of reasonable length and minimizes complexity. Although most of the messages you see as you operate the system are in the manual, not all are; however, those that are not are self-explanatory. Read the **PLACEMENT RULES** chapter, beginning on page 79, **before** reading the section of the **SYSTEM OPERATION** chapter that explains how to use these rules.

Certain features are always used for the same purpose. For example, the student ID must be nine digits. When you enter this in a field such as " - - ", you do not have to manually skip over the dashes since this is done automatically. Likewise, when dates are to be entered, you need not skip over the slashes in " / / ".

In several of the screens, the system contains defaults. For example, in the MAINTENANCE menu's **Configuration** option, the default is **M** (Monochrome) if the software detects a monochrome monitor. Thus, you need not enter **M**. Pressing [ENTER] to go to the next option is sufficient.

Due to the great variety of software and hardware, it is not possible to include detailed instructions for subjects like DOS commands or specific locations of keyboard keys. Some information is provided in the **APPENDIX**. You should also consult your DOS manual or other sources for assistance.

Should you have any recommendations for improving this manual, or any problems with the CPMS software itself, we would appreciate your comments.

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INTRODUCTION

Computerized Placement Management Software

CPMS Version 3.0 is a system for evaluating information about your students and recommending their placement into courses best suited for them. It also tracks their progress and maintains their records. The system is designed primarily for incoming students. CPMS is also one of the components of ACCUPLACER™, which is discussed below.

The specification of the criteria, or "rules," for course placement is totally up to you. This gives you complete control over the variables used to recommend students for courses. Placement is based upon test scores, background information, supplementary information such as high school record, and intended major field of study.

CPMS obtains its data from various sources. Major field codes and standard background questions are provided; however, you can create your own or modify these. Placement rules, courses, supplementary information, advisement text, and advisor codes are created using the keyboard. Test score data are obtained by using files created by the Computerized Placement Tests™ (CPTs) system, a product of the College Board, which CPMS was designed to support.

CPMS features individual student and roster reporting options. Reports available include course assignment listings, test scores, data based on variables you specify, and others. You can decide which data are to be included in the reports.

The system is designed to run on standalone IBM or compatible microcomputers. It is menu-driven to guide you at every step.

This manual assumes no prior knowledge of the system or of data processing. Information screens and numerous "help" screens are provided to facilitate the learning process. A **TUTORIAL** is provided to enable you to become familiar with the system by actually using it. You should read the **SYSTEM OVERVIEW** beginning on page 17 immediately and you are encouraged to use the **TUTORIAL** beginning on page 23.

While the system is simple and intuitive, we highly recommend that you read the manual thoroughly. This will allow you to pick up many helpful hints and procedures that you otherwise might not obtain.

Accuplacer

Your CPMS system is one of three components of Accuplacer™, a product of the College Board. The other two components are **Computerized Placement Tests**™ (CPTs) and **Placement Research Service** (PRS). A fourth component, the **School to College Placement Articulation Software Service** (PASS), is currently being developed and is undergoing field trials. With Accuplacer, you can fully manage student information and accurately place your entry-level students. While CPMS can be used by itself, Accuplacer permits you to integrate the three components to effectively manage the mass of data accompanying your incoming students. Data obtained from CPTs, such as test scores and answers to background questions, as well as the questions themselves, can also be changed using CPMS.

CPTs are used to assess your students with computers. Results of tests for arithmetic, elementary algebra, college-level mathematics, writing skills, and reading comprehension are combined with responses to background questions that may be tailored for your institution, to create a student file. The college-level mathematics test is currently being field tested. These data are automatically linked to CPMS to generate course assignments. In addition to accepting CPTs data, CPMS allows you to define courses, major fields of study, advisors, placement rules, and much more. You can also create data disks that the College Board's Placement Research Service will analyze to provide research analysis for your institution and to confirm or modify placement rules for your next placement cycle. The relationship between students' placement test scores and their college course grades will help you determine the validity of your current assessment and placement policies. Of course, the goal is not only to best place students, but also to save considerable administrative costs and to allow you to process student information efficiently.

CPTs average about 15 to 20 minutes for each basic skills test. Tests range from 12 to 30 questions. They are untimed tests and little proctor intervention is needed. Initial questions are selected randomly from those of average difficulty. Subsequent questions are automatically selected based on performance as the test proceeds. Student scores depend on the difficulty of the questions they are able to answer correctly. **Seamless Serial Testing**, a new CPTs Version 3.0 feature, can be preset by you to automatically adjust the mathematics test administration sequence according to the test taker's prior experience.

All components of the Accuplacer system are menu driven. Numerous help screens are provided to minimize the need for referencing the manual. The rules you use for placement can be the same for all students or may vary depending upon the student's major. You can place students in as many as three courses within each of six areas of study. These areas of study are English, reading, mathematics, and three others defined by you.

Study this manual to see the capabilities of CPMS. Then imagine how this power can be enhanced even more with Accuplacer!

SYSTEM REQUIREMENTS

The CPMS software operates on the IBM Personal Computer XT, 286 AT, 386, PS/2, or fully compatible computer. Minimum system requirements are:

- 640K* RAM
- Hard disk with minimum of 2 megabytes available**
- Floppy disk drive
- Monitor, color or monochrome
- Color graphics card or monochrome graphics card
- Printer: dot matrix or laser, 80 column (132-column***, normal or condensed printing capability is highly recommended but not required)
- DOS Version 2.1 through 3.3

The amount of hard disk space required depends on the size of the student database and other databases needed. At least two (2) megabytes minimum, but your individual needs may require additional space. For example, if the comments or advisement text (explained later) are voluminous, they would take up a significant amount of disk space.

Additional information appears in the **SYSTEM INSTALLATION** chapter, beginning on page 9.

---

* CPMS requires 640K of RAM main memory. **Extended** memory can not be used for this requirement. Also, use of memory-resident software, such as Sidekick, should be avoided since it may not permit CPMS to run.

** You should check the amount of remaining disk space periodically as you use CPMS. This will ensure that you will not run out of room for your databases. You can do this by entering *DIR* at the DOS prompt and then pressing [ENTER]. Be sure you are on the drive in which CPMS is installed. After all the files are listed, the message **nnn bytes remaining** appears. Note that **nnn** indicates the number of characters left on that drive.

*** If you do not use an 80-column printer that provides for condensed print, or a 132-column printer, limit any roster you produce to no more than three of the placement columns available. If you exceed this limit, the output will be poorly formatted.

SYSTEM INSTALLATION

Your CPMS software comes on two 5-1/4 inch disks or two 3-1/2 inch disks. A third **Utility** disk is supplied but not used in the installation. It is for converting databases from Version 2.0 to Version 3.0 and is discussed later in this chapter. **Never touch, or allow anything else to touch, the exposed surfaces of these disks.**

The software must be installed on your hard disk. First, you should copy the files on your distribution disks to backup disks and then place the original disks in a safe place. See the **SYSTEM BACKUP PROCEDURES** chapter on page 95 for this. Use only the copies thereafter. If you ever have a problem with the copies, you can repeat this process to create new ones. Please note that only you are licensed to use this software and that neither the originals nor copies can be given to anyone else.

Due to the variety of hardware configurations, it is not practical to include all the details required for installation on your particular computer. The following steps are guidelines that you can follow to install CPMS.

- ☐ Format the backup disks (see Formatting Floppy Disks on page 121 of the **APPENDIX**).
- ☐ Copy your original disks to backup disks. See the **SYSTEM BACKUP PROCEDURES** chapter beginning on page 95 for this.
- ☐ Place your original disks in a safe place.
- ☐ Turn on your computer and wait for the "DOS prompt". This is usually **C>** or **C:\>**, but may vary slightly depending on your computer. If asked for the date and time, enter these using the formats *MM-DD-YY* and *HH:MM* respectively. Press [ENTER] after each entry.
- ☐ Place Disk 1 in drive A.

Major Table	Background Questions
SDQ=Academic Area of Study	STD=Standard Set
CGP=CGP Curriculum Codes	NONE
NONE	

↑ ↓ to scroll ... [ENTER] to select ... [ESC] to exit

☐ Type *A:INSTALL* (either upper or lower case) and then press the [ENTER] key ([RETURN] key on some keyboards). You will see the screen shown above.

☐ Press the ↑ and ↓ keys to highlight the proper **Major Table**, or **NONE**, and then press [ENTER]. The **GLOSSARY** indicates for which kinds of institutions the **CGP** and **SDQ** major list tables are most appropriate. Select **NONE** if you want to define your own list of major codes. The cursor will move to the **Background Questions** column.

☐ Press ↑ and ↓ to indicate whether you wish to install the **Standard Set** of background question "stems" and options. Highlight your selection. Press [ENTER] to select the item. The selected items will be marked by arrows (◀).

☞ If you will work with the Tutorial sample log file, choose the SDQ major list to install. You can later re-install choosing the CGP list if that is the one you will use in practice.

☛ *IMPORTANT*: If you will use **non-standard** background questions **and** are not converting from Version 2.0, specify **NONE** in the **Background Questions** column. That is, **do not install the standard questions**. After the installation, take the CPTs 3.0 disk 1 containing the files **STEM.DBF** and **OPTION.DBF** and copy these two files into the directory in which CPMS is installed using the DOS COPY command. Then select **Reindex Database** from the **MAINTENANCE** menu.

☐ If you wish to install CPMS using the selections shown, answer the question **OKAY? (Y/N)** with *Y* to highlight your selection and press [ENTER].

- ☐ Answer the question **Enter drive (C-Z): C** with the hard disk drive onto which you want the software installed. If you want to install it on **C**, merely press [ENTER] since this is the default answer. Otherwise, enter any other letter from D through Z. If you enter a drive that does not exist on your system, the message **Invalid Drive!** will momentarily appear.

- ☐ You are now prompted with the message **Enter subdirectory: C:\CPMS** (where **C** is the drive you selected in the previous step). Press [ENTER] to install the software into the CPMS directory. To install it into a different directory, merely type in the subdirectory name over **CPMS**, which is highlighted on the screen. Use ←, →, [Backspace], and [Del] if necessary. If the subdirectory does not exist, it will be created for you.

- ☐ The following message will appear: **C:\CPMS will be created before copying files. Okay? (Y/N)** (where **C** is the drive you selected before). Answer *Y* to complete the installation. The CPMS files will be copied to your hard disk. You will see the message **Copying files . . . please wait.**

- ☐ The INSTALL program will prompt you to insert the second program disk with the message **Please insert disk #2 in Drive A: . . . Press [ENTER] when ready**. Insert the second disk and press [ENTER].

- ☐ The installation will take about one or two minutes. When all files have been copied, you will be returned to your DOS prompt (usually **C:\>**). If necessary (because the system file CONFIG.SYS had to be created or changed), you will be asked to remove the disk from drive A and press a key to reboot the computer.

☞ You can abort the installation at any point during these steps by pressing [Esc] and answering the question **Abort Installation? (Y/N)** with *Y*, or by pressing *N* if you change your mind.

☞ The INSTALL program builds the index files used by the system for accessing information in the databases.

- ☐ Following installation, read the items below immediately.

After Installation

- ☐ **Immediately** make backup copies of all the files in the subdirectory in which CPMS was installed. See the **SYSTEM BACKUP PROCEDURES** chapter beginning on page 95 for the procedure.

- ☐ Experiment with the system using the **TUTORIAL** chapter, beginning on page 23 in this manual. Then, explore the manual thoroughly until you feel comfortable with the location of the various sections.

- ☐ Review the **SYSTEM OVERVIEW** chapter beginning on page 17. This will help you better understand the menu options. Use the **MAINTENANCE** menu's **Configuration** option to tailor the software to your particular needs. These include printer control codes, using a color or monochrome monitor, and entering headings and labels that will appear on reports you produce. See page 66.

- ☐ If you wish to use the major field codes that come with the system, but want to add more codes, delete some of the codes supplied, or change them, use the **MAINTENANCE** menu's **Major Field Codes** option to do this. Follow the instructions on page 71 in the **SYSTEM OPERATION** chapter.

- ☐ Define the codes and branches for all the courses into which you will place students. Use the **MAINTENANCE** menu's **Course Codes** option to do this. Follow the instructions on page 71 in the **SYSTEM OPERATION** chapter.

- ☐ Enter advisor information using the **MAINTENANCE** menu's **Advisor Codes** option if you want to include the identification of students' advisors in their records. See page 69.

- ☐ If you wish to use the background questions that come with the system, but want additional questions, want to delete some of them, want to change them, or wish to change the allowable answers to these questions, use the MAINTENANCE menu's Background Question Screen option. Follow the instructions beginning on page 73 in the SYSTEM OPERATION chapter. The background

questions supplied with CPMS are those used in the CPTs (Computerized Placement Tests).

☞ Background questions are read from CPTs files so CPMS questions must correspond to those in CPTs. However, CPMS may contain additional questions.

- ☐ If you want to print advisement messages on each individual placement report, use the **MAINTENANCE** menu's **Advisement Text** option. Follow the instructions on page 70 in the **SYSTEM OPERATION** chapter.
- ☐ Run the CPMS system by going to the "root" directory, typing *CPMS*, and then pressing [ENTER]. You can go to the root directory by typing *C:* from any DOS prompt and pressing [ENTER]. Then type *CD* and press [ENTER]. If you are already in the root directory, just type *CPMS*.

☛ If you are a current CPMS user, you should install Version 3.0 in a different subdirectory (e.g., C:\CPMS) from that used for Version 2.0 (C:\PMS). The best sequence of steps to follow is:

- ☐ Install Version 3.0.
- ☐ Convert your existing databases, if desired, from Version 2.0 to Version 3.0, as described below.
- ☐ Backup all the files in your old C:\PMS subdirectory.
- ☐ Delete all the files in your old subdirectory.
- ☐ Delete your old subdirectory.

☞ If you install Version 3.0 in the same directory as the old (Version 2.0) software, without first deleting all the files, some of the old files will remain. Although this will cause no problems, it will take up some disk space. Either delete all the old files first, or install the software into a different directory. **The latter is preferred** because if all files are deleted, you then cannot run the conversion utility. Installation of Version 3.0 in the same subdirectory as Version 2.0 will cause any data files that can be converted to be renamed first so they can be converted later.

☞ The installation program will check to see if the **CONFIG.SYS** file exists. If it does not, it will automatically be created. If it already exists, it will be modified to meet the minimum requirements of CPMS (see the **APPENDIX**). This should not affect any other system on your computer.

☛ If you already use Version 2.0 of CPMS, and are installing Version 3.0, **you may convert most of your existing data for use by the new version as explained below. However, the placement rules will NOT be saved. You must recreate them.** The process of converting your existing data is now explained. **Do NOT simply copy these old files.**

Conversion of CPMS Version 2.0 Data

If you currently have Version 2.0 of CPMS, you can convert all of your databases, except placement rules, for use directly by Version 3.0. If you have already used Version 3.0 of CPMS and entered any data, they will be destroyed (overwritten) by any files you convert from CPMS Version 2.0. If you have entered no data into Version 3.0, simply convert the Version 2.0 data. The procedure is given below:

- ☐ Place the **Utility disk** into drive A.
- ☐ Type *A:UPDATE* at the DOS prompt. Press [ENTER].
- ☐ You will get the message **Please enter path of old system (e.g. C:\PMS)**. Enter the drive and directory where Version 2.0 is located. If it is in drive C, directory PMS, enter *C:\PMS*.
- ☐ You will then get the message **Please enter path of new system (e.g. C:\CPMS)**. Enter the drive and directory where Version 3.0 is located. If it is in drive C, directory CPMS, enter *C:\CPMS*.
- ☐ As the program encounters each of the databases in your Version 2.0 directory, you will get one of the messages following this step. Answer *Y* to convert that file and copy it to your Version 3.0 directory. Answer *N* to skip that file. The messages that appear are:
  - **Copy student database? (Y/N)**
  - **Copy course database? (Y/N)**

- **Copy major code database? (Y/N)**
- **Copy advisor database? (Y/N)**
- **Copy advisement text? (Y/N)**
- **Copy background questions and options? (Y/N)**

☐ After this process is completed, you will be returned to DOS.

☞ If you do not copy one or more of any existing databases (i.e., you answer *N*), you must create that file in Version 3.0. You can do this manually for the student, course, advisor, and advisement text databases. The major code and background questions and options databases can either be installed as part of Version 3.0 or created directly by you.

☞ Reminder: You **cannot** convert placement rules from Version 2.0 to Version 3.0. You must recreate them, so make sure you have retained an accurate record of them.

☞ Version 2.0 of CPMS is automatically installed in the **PMS** directory on C:\ (root directory of drive C). Version 3.0 of CPMS is automatically installed in the **CPMS** directory of C:\ , unless you choose to install it in another directory. However, a batch file to execute the system is created in the root directory of C:\. This is why CPMS can always be run by typing CPMS from the C:\ directory, no matter where the software itself is installed.

Conversion: Version 2.0 Background Questions

You should be aware of procedures to follow with respect to converting background questions used with Version 2.0 for use with CPMS Version 3.0. These are summarized below:

☐ If you specify the standard set of background questions when installing Version 3.0 of CPMS, you need not convert the Version 2.0 questions because the correct set is already present. CPMS will not give you the option to convert them during the conversion process. Also, the student database will be automatically adjusted to

accommodate the new question ETS added to the standard set; you need do nothing.

- ☐ If you specified no background questions when installing CPMS Version 3.0, the conversion process will still permit you to convert Version 2.0 background questions. The old questions, as well as the old student database, will be converted for use with Version 3.0 without any adjustment.

SYSTEM OVERVIEW

This chapter provides an introduction to the CPMS software. You should read this before going on to the **SYSTEM OPERATION** chapter because it reviews the system in general and will help you understand the operational details later.

The purpose of CPMS is to allow placements to be made based on test scores, answers to background questions, supplementary data you enter from the keyboard, and the students' major field of study. Data are easily added, changed, and deleted. A number of reports are available, and you can determine not only which information appears in these reports but also whether the reports appear in ID number sequence or last name sequence.

You must define the courses into which students will be placed, and the placement rules that define the criteria for these placements. The placement rules can be very simple or very complex. These rules are a reflection of the policies of your institution and are totally up to you.

The **SYSTEM OPERATION** chapter beginning on page 33 describes in detail how to use your system. First, however, each Main Menu screen will be shown with a brief description of each. When you first load your software, you will see a screen containing copyright information. Pressing any key will present the following Main Menu. Note that **STUDENT MENU** is highlighted:

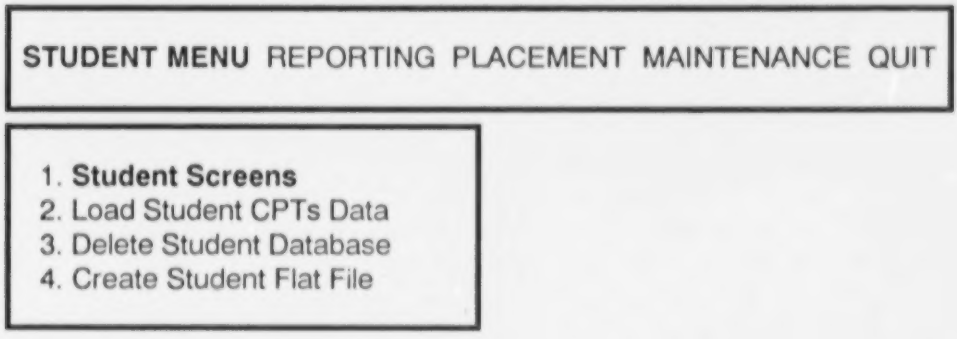
Main Menu

STUDENT MENU REPORTING PLACEMENT MAINTENANCE QUIT

Computerized Placement Management Software

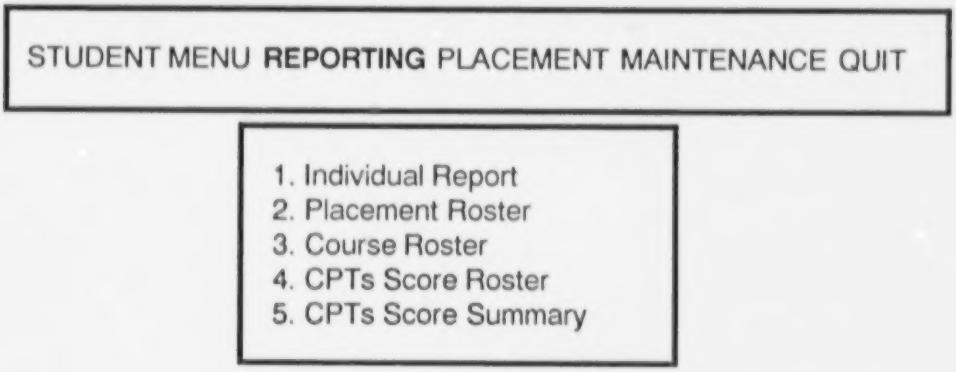
By selecting the entries in this menu, you obtain a "pull-down" menu for each. The left side of each menu is aligned with the left side of the Main Menu option. To select menu entries, use the ← and→ keys to highlight the desired entry and press [ENTER]. These are now reviewed individually:

Student Menu


STUDENT MENU REPORTING PLACEMENT MAINTENANCE QUIT
1. Student Screens
2. Load Student CPTs Data
3. Delete Student Database
4. Create Student Flat File

These four options allow you to enter, view, and revise individual student records. Placements, test scores, answers to background questions, and identifying information are available. You can add, change, or delete student information, test scores, answers to background information, and supplementary information. You can search the student database to locate information such as test scores, advisors, etc. Student test scores can be loaded from a student "log file" into the student database. The entire database can be deleted, but this should be done only with extreme caution. A backup of the student database should be made before doing this. Finally, an ASCII "flat" file can be created for use with other systems.

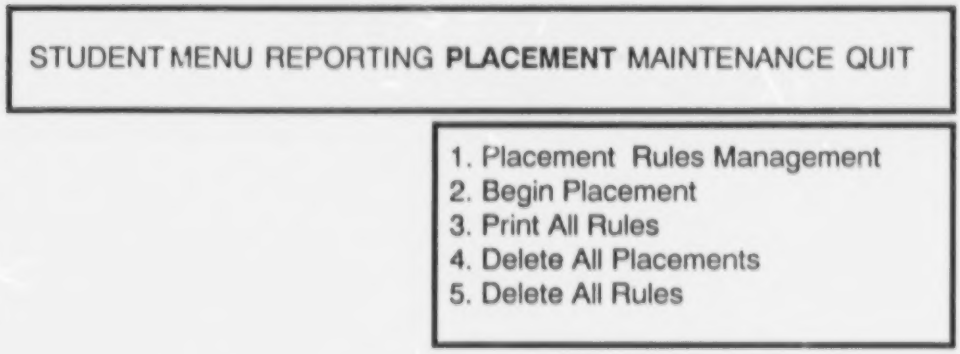
Reporting



These five options provide comprehensive reporting based on the information in your system. You can specify which data are to be included, the range of data, and whether the reports are to be sorted by last name or ID. Further, you can either display your reports directly on the screen or print them. Both individual reports and rosters are included. Sample reports appear beginning on page 136 in the **APPENDIX**.

> ☞ If you do not use a printer that provides for condensed print, or a 132-column printer, limit any roster you produce to no more than three of the placement columns available. If you exceed this limit, the output will be poorly formatted.

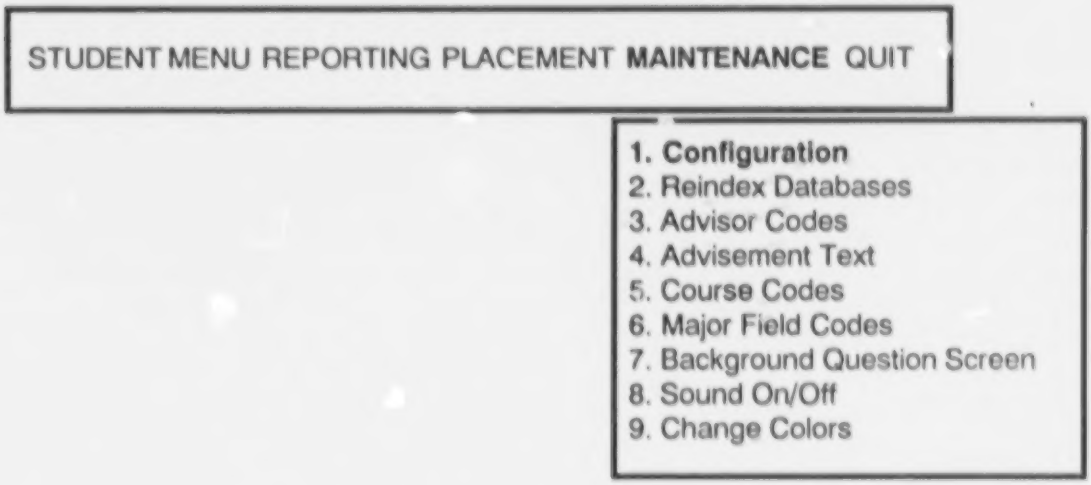
Placement


STUDENT MENU REPORTING **PLACEMENT** MAINTENANCE QUIT
1. Placement Rules Management
2. Begin Placement
3. Print All Rules
4. Delete All Placements
5. Delete All Rules

You use these five options to create or change course placement assignments. Placement rules can be as simple or as complex as you wish. Placements made using these rules can be viewed on the screen or printed using options in the Student Menu or the Reporting Menu. Finally, the placements made using these rules can be deleted, as can the rules themselves. Before deleting rules or placements, ensure that you have a backup of your complete CPMS subdirectory.

Although the preceding menu items are presented to you in the indicated order, you must actually use the **MAINTENANCE** menu options first to prepare your system for use. For example, you use **MAINTENANCE** options to add advisor codes, course codes, and major field codes. Optionally, you can add, modify, or delete background questions and answers.

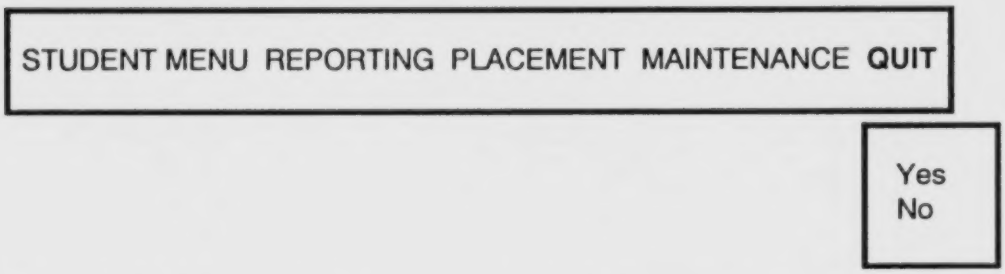
Maintenance



These nine options fall into two general categories. First, you may enter information required by CPMS, such as Course Codes, Advisor Codes, Major Field Codes, Background Questions, and Advisement Text. You can not place students unless Course Codes are first entered. Advisor Codes are optional, but these will display or print on Student Screens and reports. The same is true of Advisement Text. You can use either the CGP or SDQ major field codes supplied with the software or define your own. The ten standard background questions used with the Computerized Placement Tests (CPTs) are provided with CPMS. You can modify, add, or delete any of the questions. You can also elect to install **NONE**, or to add your own.

The second category of options describes those used to customize your system. The Configuration option allows you to specify the characteristics of your printer and monitor, and to specify information to appear on reports. You can also specify the titles of optional placement and supplementary data categories provided by the system for your use. Reindex Databases permits you to perform a function that may be needed periodically. You can also allow or prevent sounds during system operation, as well as modify the colors for various screens you see on your display.

Quit



This option allows you to exit the system when you have completed your work.

CPMS is fully menu operated and very user friendly. It is also very intuitive, and you should be able to perform most operations with only minimal reference to the manual. Further, in many cases Help Screens are available. Whether you need information about a particular screen, or about a specific field, press [F1]. The information you need will be shown directly on your display.

Function keys [F1] through [F10] are used in many places to provide additional options. They are displayed on your monitor in every screen where they are applicable. In general, the meaning of a particular function remains the same throughout the software. After a short period of use, you will use the correct keys without giving it any thought. Function keys are discussed in detail beginning on page 37 of the **SYSTEM OPERATION** chapter.

TUTORIAL

In addition to the CPMS software, you are provided with a sample log file containing student test score data. By using this file, you can use CPMS as a tutorial. This will permit you to experiment with the operation of the software before you use it in a live environment. Use of the sample log file, and of CPMS as a tutorial, is optional. However, it is recommended because it gives you the opportunity to learn how to use the system and to become familiar with a number of its capabilities. You can use this tutorial and the manual in any combination you want. First, you should read the **SYSTEM OVERVIEW** chapter beginning on page 17.

Follow the instructions in this tutorial. It will take you through installing CPMS, using the sample log file to input test scores, and using several of the features of the system. It does not cover all of the features of CPMS, but it will give you the flavor of the system and help you feel comfortable using it. After you are done, you can continue to experiment with the system as you see fit. When you are ready, reinstall CPMS to use it for your real work with live information about your curriculum and your students.

Reference is made to various sections in this manual as you proceed, so keep it handy while you work. This will also make it much easier to understand the manual. Many of the steps below will include a brief explanation of why you are doing what is requested.

If you make a mistake at any point, you can always "back out" of it by pressing the [Esc] key. Every time you press [Esc], you will return to the previous step or screen. If you make a mistake and are not sure how to rectify it, use [Esc] to back up and try again.

Installing CPMS

☐ Turn on your computer and wait until you see the DOS prompt. This is normally **C:\>** but may vary slightly depending on your computer and how it is configured.

☐ Install CPMS. Follow the instructions in the **SYSTEM INSTALLATION** chapter beginning on page 9. Be sure to first copy the original disks and then store them safely. See page 96 for this procedure. Use only the copies to install CPMS. When asked, choose **SDQ** under the **Major Table** heading and **STD** under the **Background Questions** heading. This causes the major codes and the standard background questions to be installed.

Executing CPMS

☐ While you are in the C:\> (root) directory, type *CPMS* and then press [ENTER]. After the Copyright screen appears, press any key to continue. The Main Menu, shown on page 33, will appear. This provides you with five major functions: STUDENT MENU, REPORTING, PLACEMENT, MAINTENANCE, and QUIT. **STUDENT MENU** will be highlighted.

☐ Press [ENTER]. The screen shown on page 34 is selected.

Adding Students

The sample log file you are provided with contains several students and their test scores. By following the steps below, you will add these students and their scores to your system.

☐ Press the ↓ key until **Load Student CPTs Data** is highlighted on the screen. Or, you can press 2. Either will work. Whenever a menu option is highlighted, it is selected for use.

☐ The Log File Conversion screen shown on page 45 then appears. Follow the instructions there to specify the drive and directory name where the log file will be found. The sample log file will be found on installation disk 1. Place it into drive A, and type *A:*. Press [ENTER].

- ☐ You will then see a message asking **What would you like to do if a duplicate record is found?** Select **Replace record in file with new data**. The student records will be copied to the directory in which CPMS has been installed.
- ☐ When you see the message **Finished . . . press any key**, press any key. You will return to the Main Menu once again.

You can also add student records yourself, delete them, and change student information. The following steps will show you how to add a student record.

- ☐ Press the → key if necessary until **STUDENT MENU** is highlighted. Then press [ENTER].
- ☐ **Student Screens** will be highlighted. Press [ENTER], or, press *1*. The screen shown on page 35 appears.
- ☐ **Student ID** will be highlighted. Enter the ID number *123456789*. Do not type in any dashes. Press [ENTER].
- ☐ **Last Name** will be highlighted. Enter *Jones* and then press [ENTER].
- ☐ Enter *Y* after the message **Student not found . . . add?** appears.
- ☐ Press [F10]. Look for **ADDED** to momentarily appear near the upper-right corner of the screen. [F10] must always be pressed to save data.
- ☐ Press ↓ until the **First Name** field is highlighted.
- ☐ Enter the **First Name** *Michael*. Press [ENTER].
- ☐ Enter the **Middle Initial** *A*. Do not press [ENTER].
- ☐ Enter the **Birthdate** *063040*.
- ☐ Enter the **Major Code** *300*. Press [ENTER]. This is one of the valid major codes in the SDQ list of major codes you installed. If you wanted to enter a major code that did not exist on your system, you would have to add it first to the list of major codes. An example is included later in this tutorial.

☐ Press [F10]. **UPDATED** will appear momentarily near the upper-right corner of the screen to indicate that these data were added to the previously added student record.

When you use this screen, the box shown on page 37 appears immediately under it. This shows various keys to use for different functions. For example, pressing [F3] will display the student's scores, and pressing [F5] will display the background questions and student answers that you copied from the log file above. Detailed instructions begin on page 35 for each of these functions, as well as instructions on how to modify student information.

Adding Courses

You must add courses in order to have CPMS generate course placements for each student. The steps below show you how to define and add several courses.

☐ Press [Esc] until the Main Menu appears once again.

☐ Press the → key until **MAINTENANCE** is highlighted. Then press [ENTER]. A list of options appears. These are explained in detail beginning on page 67. Two options are examined in this tutorial: adding **Course Codes** in this section and adding **Advisor Codes** later.

☐ Press ↓ until **Course Codes** is highlighted and press [ENTER]. Or, press *5*. The screen shown on page 70 appears.

☐ Add the course *ENG 101* in the **Course Name** field. Be sure to include the space before the number. Press [ENTER]. The message **Course not found . . . add?** appears.

☐ Press *Y* to indicate Yes. The course name will be highlighted.

☐ Press [ENTER] to move to the **Course Branch** field. Enter *E* to indicate English. Press [F10] to save the information. **ADDED** will appear momentarily near the upper-right corner of the screen. Press [ENTER].

☐ Press [Esc] to clear the screen for additional entries. Then add the following courses by repeating the last three steps above:

- ENG 201, course branch E
- ENG 301, course branch E
- FAM PLN 22, course branch 1
- MATH 111, course branch M
- MATH 211, course branch M
- PSYCH 100, course branch 1
- READ 099, course branch R

Adding these courses will allow you to experiment further with the system after completing this tutorial. Note that course branches **E**, **M**, and **R** represent English, Mathematics, and Reading, respectively. These are installed automatically with the system. Course branch **1** is one of three branches that you can define using the **Configuration** option of the **MAINTENANCE** menu; this is discussed on page 67.

Adding Advisor Codes

☐ Press [Esc] until the Main Menu appears again.

☐ Press the → key if necessary until **MAINTENANCE** is highlighted. Press [ENTER]. A list of options appears as before.

☐ Press ↓ until **Advisor Codes** is highlighted and press [ENTER]. Or, press *3*. The screen shown on page 69 appears.

☐ Enter advisor code *ALP1* into the **Advisor Code** field. Press [ENTER]. The message **Advisor not found . . . add?** appears. Press *Y* to answer Yes.

☐ Press [ENTER] to move to the **Title** field.

☐ Enter any title you wish into the **Title** field. Press [ENTER]. It is <u>not</u> necessary to press [ENTER] if you fill this entire field. The next field will automatically be highlighted for entering data.

- ☐ Enter any first initial you wish into the **First Initial** field.
- ☐ Enter *Paulson* in the **Last Name** field. Press [ENTER].
- ☐ Enter *M-201s, X209B* into the **Address** field. Press [ENTER].
- ☐ Press [F10] to save the data. **ADDED** will momentarily appear near the upper-right corner of the screen.
- ☐ Press [Esc] to clear the screen for additional entries. No advisor codes come with the system and you must enter them yourself. Add the following advisor codes by repeating the last three steps above:
  - ALP2, name is Paulson, address is E-10, X429B
  - BJM, name is Mislow, address is F-101, X1234
  - FXS, name is Shannon, address is L-42W, X2933
  - RG, name is Gans, address is D-812

At this point you have added students, student test scores, courses, and advisor codes. The system was installed with major codes, background questions (stems), and the answers (options) to these questions. You will now be able to create a placement rule, use this rule to place students, and then print a report of the results.

Creating a Placement Rule

Placement rules are the criteria you use to have CPMS recommend student placement into courses. Refer to page 80 for additional information. Follow these steps to define a simple placement rule:

- ☐ Press [Esc] until the Main Menu appears once again.
- ☐ Press the → key, if necessary, until **PLACEMENT** is highlighted. Press [ENTER]. A list of options appears.
- ☐ **Placement Rules Management** will be highlighted. Press [ENTER]. Or, press *1*. The screen shown on page 55 appears.
- ☐ Enter *ENG 101* into the **Course** field. Be sure to include the space before the number. Press [ENTER]. The rule you are creating will recommend placement into this course.

- ☐ Leave **Major From** blank and press [ENTER]. **ALL** appears.
- ☐ Leave **Major To** blank and press [ENTER]. **ALL** appears. Both **ALL**s mean that this rule will apply to all majors from the beginning to the end of the major codes database.
- ☐ The screen shown on page 56 now appears. **Add line** is highlighted. Press [ENTER] to select it.
- ☐ A small box appears with **0.00** next to **Weight** highlighted. Enter *1.00*.
- ☐ The area to the right of **T/B/S** is now highlighted. Enter *T* for test. This will cause your rule to examine a specified test score to determine placement.
- ☐ A second box will appear as on page 57 with **Algebra** highlighted. Select Reading by pressing ↓ until it is highlighted. This is the test score you will examine using this rule. Then press [ENTER].
- ☐ A third box will appear as on page 59 with = highlighted. Select the **>** symbol by pressing ↓ and press [ENTER]. In this rule, this means that the score in the Reading test must be greater than some value for the student to be placed into the course.
- ☐ The value **0.0** to the right of value is now highlighted. Enter *90*. This is the test score you will check for. Press [ENTER].
- ☐ A box with **END** highlighted appears as on page 60. Press [ENTER] to select *END*, which specifies the end of this rule. This rule is very simple, but the manual explains how to create much more complex rules should you need them.
- ☐ Press [F10] to save this rule. **ADDED** will flash momentarily near the upper-right corner of your screen. As always, if you do not press [F10], the rule will not be saved.
- ☐ Press [Esc] and the rule you created will be displayed. Summarizing, this rule will look at every student in all majors and recommend each for placement into ENG 101 if the score in the Reading test is greater than 90.

Placing Students

After you have entered all necessary information into the system, including placement rules, you may now actually place students. This may be done by following the steps below. See page 61 for more information.

- ☐ Press [Esc] until the Main Menu appears once again.
- ☐ Press the → key if necessary until **PLACEMENT** is highlighted. Press [ENTER]. A list of options appears.
- ☐ Press ↓ until **Begin Placement** is highlighted and press [ENTER]. Or, press *2*.
- ☐ A second box appears on which **Latest Score** is highlighted. Press [ENTER] to select it.
- ☐ A third box appears in which **All Students** is highlighted. Press [ENTER] to select this option.
- ☐ CPMS will now place students using the rule you previously created. As it does, you will see a message indicating the number of the student being processed. You will return to the Main Menu when this is completed.

Printing Reports

Once students have been placed, you may select any of several reports. You can customize these reports according to the steps shown beginning on page 49. Follow the steps below to generate a sample report. Make sure your printer is ready to print.

- ☐ Press the → key, if necessary, until **REPORTING** is highlighted. Press [ENTER]. The options shown on page 18 will be displayed.
- ☐ Press ↓ until **Course Roster** is highlighted. Press [ENTER]. Or, press *3*. The screen shown on page 51 appears.
- ☐ To select the following values, use ↑ and ↓ to move the cursor up and down in each column. As you do so, the ◀ symbol indicating your selection also moves. Then, use the [Tab] key to move to the next column and make your

selection in the same way. If you need to move to the left, hold [Shift] down while you press [Tab]. Select **ID** (under the **Sort By** column), and **Select Course** (under the **Print For** column) and press [ENTER]. Press ↓ until **ENG 201** is highlighted in the box listing all the courses. Then press [ENTER].

- ☐ Press [F8] to see your report on the screen, or press [F9] to print your report.

Exiting CPMS

When you have finished using CPMS as a tutorial, you will exit the system. This will return you to the DOS prompt. Please follow the steps shown:

- ☐ Press [Esc] until the Main Menu appears once again.
- ☐ Press the → key or [Esc] until **QUIT** is highlighted. Press [ENTER].
- ☐ If you wish to continue experimenting with CPMS as a tutorial, press *N* and you will return to the Main Menu.
- ☐ If you wish to stop using the system at this time, press *Y* to quit. A warning message will ask **Are you sure you want to quit?** Press *Y* to exit the system.

There you have it. Simple, isn't it? Now go back and study the manual in detail. Leave the system you used for the tutorial installed in order to gain experience with it. Try each of the options to your heart's content. When you feel that your expertise has increased to the point where you can use the system to place real students, simply reinstall it as outlined beginning on page 9.

SYSTEM OPERATION

This chapter explains how to use CPMS. Each menu and screen is explained in detail. Although the sequence in this chapter is the same as the items appearing in the menus, actual operation will be somewhat different. For example, you would need to enter courses, create placement rules, and place students before generating various reports. This is done using the **MAINTENANCE** menu discussed beginning on page 67. Even though this menu must be used first, it appears later in this chapter, as well as in the **Main Menu**, because it will be used only rarely thereafter. You can use this chapter as either a learning guide or a reference guide. Use the system as you read this manual, and perform the steps as you read them.

In cases where you enter data into a field, you typically can enter from one character to the maximum allowed. When you fill up the field, it is not necessary to press [ENTER] to go to the next field (if any). CPMS will go there automatically. You need to press [ENTER] only if you enter less than the maximum characters allowed.

Main Menu

While you are in the C:\> (root) directory, type *CPMS* and then press [ENTER]. The following screen will appear:

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The College Entrance Examination Board
and Educational Testing Service
All Rights Reserved

Press Any Key to Continue

Press any key in order to get to the Main Menu shown below:

STUDENT MENU REPORTING PLACEMENT MAINTENANCE QUIT

Computerized Placement Management Software

STUDENT MENU is initially highlighted. You can select any other option by using ← or →. When you get to the end of the line, pressing the key again will return to the other end. You then select the highlighted option by pressing [ENTER]. You can also select an option by pressing the first letter of the option and then pressing [ENTER]. For example, press ***P*** and then [ENTER] to select **Placement.**

Pressing [Esc] from the Main Menu will exit the system. You will first be asked **Are you sure you want to quit?** Select Yes or No by highlighting the proper box using ← or → and then pressing [ENTER] (or typing ***Y*** or ***N***).

Each of the options in the Main Menu is now discussed.

Student Menu

When this option is selected, the four options shown below are displayed:

1. **Student Screens**
2. Load Student CPTs Data
3. Delete Student Database
4. Create Student Flat File

A selection can be made from these options in one of two ways.

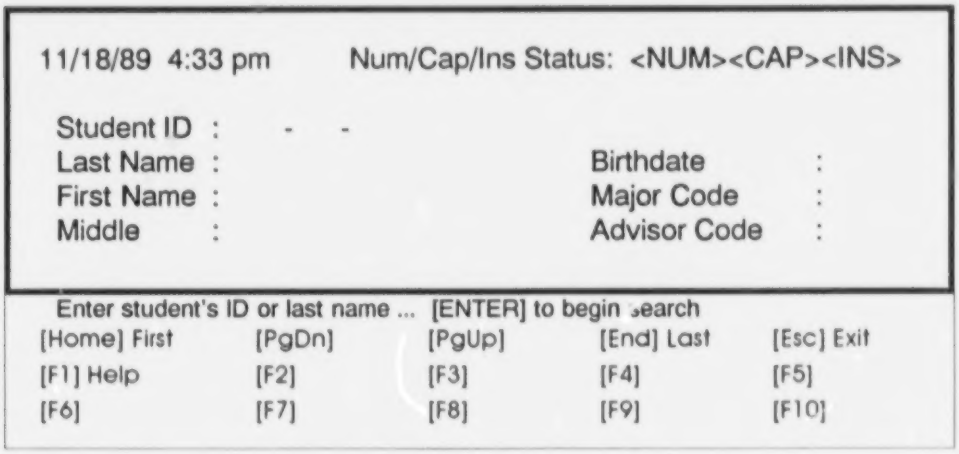
- ☐ Use the ↑ or ↓ keys to highlight the items desired. Then press [ENTER].
- ☐ Press the number corresponding to the item. It is not necessary to press [ENTER].

☞ Pressing ← or → will cause the selection items for the other Main Menu items (**STUDENT MENU**, **REPORTING**, **PLACEMENT**, **MAINTENANCE**, or **QUIT**) to be displayed.

1. Student Screens

This option is used for locating existing student data, adding new student data, or modifying existing student data. You can edit student scores, placement information, student answers to background questions, and supplementary data.

You can add comments to student records. Although a number of these capabilities are not fully covered until later, they are mentioned here. The **Student Screens** option appears highlighted on the screen and is in bold in the menu shown above. When you select it, the following screen appears:



First, the screen format will be described since many of the function keys and other items have the same meaning in other screens. At the top left is the current date and time (if your computer has an internal clock). At the top right is the **Num/Cap/Ins Status**. If any of these keys are activated on your keyboard, they are shown here. If they are not activated, they are not shown here. In the example, all three are shown. This line will not be shown in the remainder of this manual for the purpose of clarity.

At the bottom of the screen, various keyboard keys appear within brackets. To the right of each, the key's function is shown. In this screen, pressing [Home] will display the first record in the student database, [End] will display the last, and [F1] will display a "help" screen to provide you with useful information. **Always press [F1] if you are not sure how to proceed.** Press [Esc] to return to the prior screen.

☛ **Each time [Esc] is pressed, it backs up to the previous screen. You can press it multiple times to back up several screens. [F10] must always be used to save data. If you make changes to your data, but press [Esc] before [F10], your data will not be saved.**

■ Adding a Student Record [F10]

☐ Enter the student's **ID** (Social Security number). Press [ENTER]. Enter the student's last name. Press [ENTER] again.

- ☐ Answer *Y* to **Student not found . . . add?** (If you answer *N*, the data will not be saved.)
- ☐ You **must** then Press [F10] to save this student ID. You will see **ADDED** flash momentarily near the upper-right corner of your screen.
- ☐ Enter the rest of the data. Use ↑ or ↓or [ENTER] to move to the field desired.
- ☐ Press [F10] to save the additional data entered. You will see **UPDATED** flash near the upper-right corner of your screen.
- ☐ Press [Esc] to clear the screen in order to add another student record.

☞Note the following:

- All alphabetical data appear on the screen in upper case.
- Entry of an invalid major code or advisor code will give you a message indicating it is invalid. Press [F8] to list the valid codes. Highlight the desired code using ↑ or ↓and then press [ENTER] to select it.
- Be sure not to add spaces where they don't belong. Thus, "**_Jones**" is **not** the same as "**Jones**". However, extra spaces after the data are acceptable.
- Any data in a student's record can be changed, but you cannot assign an ID number if that ID number already exists in the student database. Attempting to add a record with the same Social Security number as an existing one will not be allowed; **INVALID (DUPLICATE) ID ENTERED . . . CAN'T SAVE** will momentarily display on your screen. Clear the screen by pressing [Esc] to proceed.
- If you try to add a student, and there are others with the same last name (but a different Social Security number), a list of these will appear. If you still wish to add this record, use the ↓ key to move the highlight to the end of the list. **Add Student** will appear. Press [ENTER].
- Filling a field with data will often automatically bring you to the next field. You do not have to press [ENTER] or use ↑ or ↓. The exception is the Student ID field.
- If you do not press [F10], your data will not be saved.

☞ Any of the information, even the **Student ID,** can be changed. To save a record (when adding or changing it), you must enter the ID and at least one other item of information that is requested. Remaining fields may be left blank. However, if you enter a **Major Code** or an **Advisor Code**, they must be valid codes.

As soon as you attempt to add or locate a student record, the bottom of the screen changes to appear as follows:

[Home] First	[PgDn] Next	[PgUp]Prior	[End] Last	[Esc] Exit
[F1] Help	[F2] Delete	[F3] Scores	[F4] Placement	[F5]Background
[F6] Supp Data	[F7] Comment	[F8]	[F9]	[F10] Save

These keys have the following meanings for this screen. Note that not all the keys are used at this point. The keys used throughout the system vary somewhat from screen to screen. As always, use the [F1] key to display help information whenever you are not sure how to proceed.

[Home]	Locate and display the first record in the database (alphabetical order by last name).
[PgDn]	Skip to and display the next record.
[PgUp]	Skip to and display the prior record.
[End]	Locate and display the last record in the database.
[Esc]	Exit to the previous screen.
[F1]	Help.
[F2]	Delete student record currently being displayed.
[F3]	Display/edit scores.
[F4]	Display/edit placements.
[F5]	Display/edit background questions/answers.
[F6]	Display/edit supplementary data.
[F7]	Display/edit comment.
[F8]	Not used for this screen.
[F9]	Not used for this screen.
[F10]	Save changes.

Most of these were discussed above. The others will now be discussed in detail.

■ Changing or Examining Student Information

- ☐ Enter the student's ID (Social Security number). You may also enter the **Last Name** if you wish. Or, you may use [Home], [End], [PgDn], and [PgUp] in any combination to locate the record in the database. If you do, skip the next step.
- ☐ Press [ENTER] twice.
- ☐ Use the keyboard arrow keys to modify any data you wish. Note that the [Backspace] key will delete prior characters as it backs up. The [Del] key will delete the character on which the cursor is positioned.
- ☐ Press [F10] to save the changed record. **UPDATED** will flash near the upper-right corner of the screen.

☞ If you enter a last name identical to others in the database, a list of all students with that last name will appear. You can scroll up and down should this list be large and not display all at once. Select the student you wish using the arrow keys, and press [ENTER]. That student's information will be displayed and can then be changed. Entry of a student ID not in the database gives you the message **Student not found . . . add?**. Enter *Y* and press [F10] to add the student. Select *N* if you do not wish to add a record.

☞ Entry of an invalid major code will give you the message **Invalid Major Code Entered. Press [F8] to list major codes or press any key to re-enter**. Press [F8] to get a list of the valid codes. Use ↑, ↓, [PgDn], or [PgUp] to scroll this list and highlight a valid code. Press [ENTER] to select this code and have it placed on your screen. Thus, if you do not remember the code you need, merely enter an invalid code, such as **X**, and press [ENTER]. You can then scan all valid codes as explained above.

☞ If an invalid advisor code is entered, the message **Invalid Advisor Code Entered. Press [F8] to list advisor codes or press [ENTER] to re-enter** appears. Press [F8] to get a list of the valid codes. Use ↑, ↓, [PgDn], or [PgUp] to scroll this list and highlight a valid code. Press [ENTER] to select this code and have it placed on your screen. Remember to press [F10] to save your changes.

■ Deleting a Student Record [F2]

- ☐ Enter the student's ID. You may also enter the **Last Name** if you wish. Or, you may use [Home], [End], [PgDn], and [PgUp] in any sequence to locate the record in the database (student records are stored alphabetically in the database). If you do, skip the next step.
- ☐ Press [ENTER] twice. The student's record will display.
- ☐ Press [F2]. Answer **Are you sure you want to delete this student's record?** with *Y* and press [ENTER]. All data for the student will be removed from the database.
- ☐ If you change your mind and do not wish to delete the record, use → to highlight and select **No** and press [ENTER], or just press *N* followed by [ENTER].

■ Displaying, Editing, Deleting, and Adding Scores [F3]

- ☐ Display the student record as before.
- ☐ Press [F3] (Scores). You will see a list of the selected student's scores (if any) appear below the student's record. Since all scores are shown, use ↑ and ↓ to scan this list. The screen might look like this:

Test Scores by Date

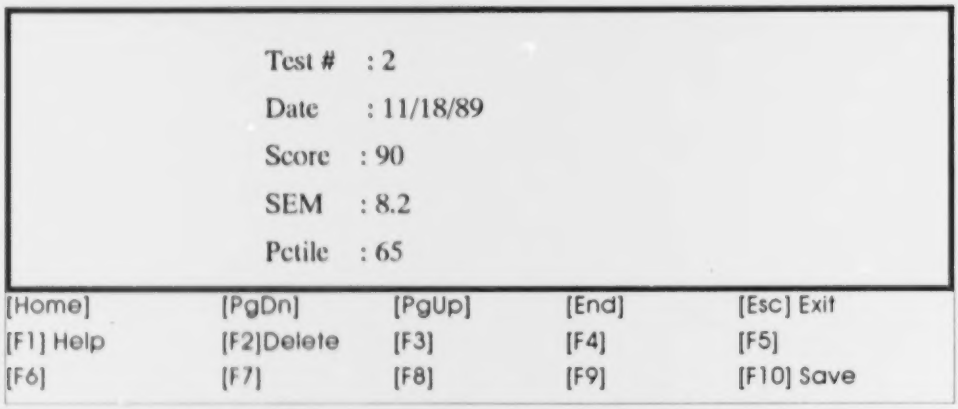
Date	Test	Score	SEM	%ile
11/18/89	Arithmetic	90	8.2	65

Add Score Record

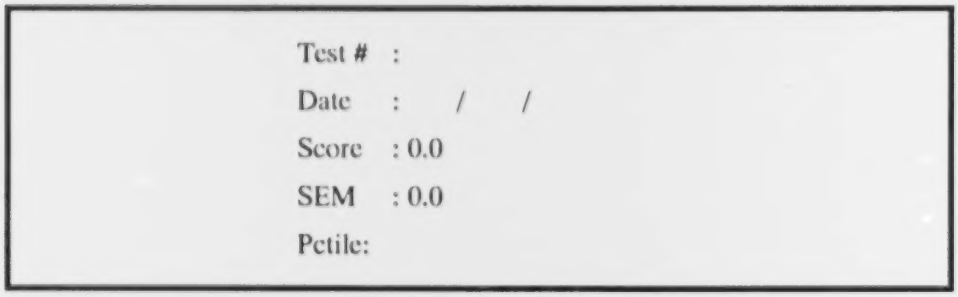
↑ ↓ to scroll ... [ENTER] to select ... [ESC] to exit

[F1] Help	[F2]	[F3]	[F4]	[F5]
[F6]	[F7]	[F8]	[F9]	[F10]

- ☐ To modify an existing score record, simply highlight it and press [ENTER]. The screen presented will look as follows (SEM is Standard Error of Measurement):



- ☐ To change one or more items, select the items and revise the data. Then press [F10]. The data will be saved.
- ☐ To delete a test score, press [F2].
- ☐ To add a test score, select **Add Score Record** (the last item on the screen that displays all the scores). The same screen as before will appear, except it will be empty, as shown below. Simply add the information you want and press [F10]. The record will be saved and will immediately appear in your list of scores:



☞ If you forget what the valid test numbers are, merely enter an invalid one such as zero (0). You will get the following message: **Invalid Test Code Entered. Press [F8] to list test codes or press any key to re-enter**. If you press [F8] the following screen appears. Note the correct test number and then press any key to return to the prior screen where you can enter the test number. Or, select the test score using ↑↓. Press [ENTER] and this test number will be inserted into the screen shown above.

1 = Algebra

2 = Arithmetic

3 = Reading

4 = Sentence Skills

5 = College Math

☞ If you delete a test score that resulted in a placement, the placement itself will not be deleted. Rather, a message will appear on the screen and in reports indicating that placements may not be up-to-date.

☞ The software and manual use "Algebra" for the CPTs Elementary Algebra test when there is not room on the screen for the full name.

■ Placement [F4]

☞ In order to place students into courses, the courses must already exist. You add them using the **MAINTENANCE** menu's **Course Codes** option. This is discussed on page 71.

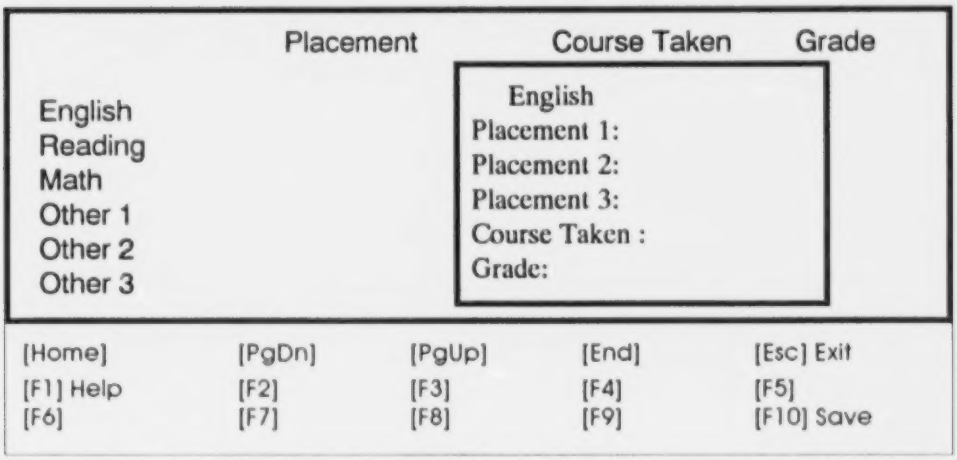
☐ With student information still displayed, [F4] is used to display already determined placement assignments. Press [F4] to display up to three placements for each of the six categories shown (**Other 1**, **Other 2**, and **Other 3** will be displayed only if previously defined using the **MAINTENANCE** menu's **Configuration** option):

	Placement	Course Taken	Grade
English			
Reading			
Math			
Other 1			
Other 2			
Other 3			

↑↓ PgDn PgUp to scroll ... [ENTER] to edit ... [ESC] to exit

[F1] Help	[F2]	[F3]	[F4]	[F5]
[F6]	[F7]	[F8]	[F9]	[F10]

☐ Use ↑ and ↓ to highlight the category you want to edit. Then press [ENTER]. The placement data for this category appear in a smaller box, as shown below. (English is used as an example.)



☐ Use ↑ and ↓ to highlight the item(s) you want to edit and then edit them.

☐ Press [F10] to save your changes.

☐ Press [Esc] to return to the prior screen.

☞ If you don't recall a valid course name, enter an invalid course such as **X**. The following message will appear: **Invalid Course Name Entered. Press [F8] to list course names or press any key to re-enter**. Press [F8] to select from a list of valid course names.

☞ If courses do not exist, this message appears: **Course codes have not been entered. You must leave this field blank. Press any key**. Just leave the course blank and press any key. You can enter the course later, after you create it.

■ Background Questions [F5]

☐ With student information still displayed on the screen, the [F5] key is used for **Background Questions**. Press [F5] to display or edit the student's answers to background questions. The following screen appears:

```
1 Years studied English in high school
2 Years studied mathematics in high school
3 Studied algebra in high school
4 Years since last mathematics course
5 Sex
6 Self description
7 English first language
8 Disabling condition
9 Father's education
10 Mother's education

                    Answer: 2

↑↓ PgDn PgUp to scroll ... [ENTER] to edit ... [ESC] to exit
[F1] Help   [F2]   [F3]   [F4]   [F5]
[F6]        [F7]   [F8]   [F9]   [F10] Save
```

- ☐ To see valid answers to each question, select the question using ↑ and ↓ and press [ENTER]. To see the student's response to each question (from CPTs), highlight each question. The student's answer to the highlighted question will appear below the box shown above (if no answer is available, the message **Answer: Not Available** appears).

- ☐ To change an answer, highlight the question itself. Press [ENTER]. The possible answers to that question will appear. Highlight the desired answer and press [ENTER].

- ☐ Press [F10] to save **all** the new answers.

☞ Each background question supplied with the system, and the possible answers for each, are in the **APPENDIX** beginning on page 113.

■ Supplementary Data [F6]

- ☐ With student information still displayed on the screen, the [F6] key is used for **Supplementary Data**. Press [F6] to display the existing data for that student. The following screen appears. All of the entries will have the labels you assigned by using the **MAINTENANCE** menu's **Configuration** option (the three labels shown are examples):

Supplementary Data	
Writing	: 0.0
HS GPA	: 0.0
Class Rank	: 0.0
	: 0.0
	: 0.0
	: 0.0

☐ Use ↑ and ↓ (or [ENTER]) to highlight the item you want to add or edit. Then enter the changes.

☐ Press [F10] to save your change(s).

☐ Press [Esc] to return to the prior screen.

■ Comment [F7]

☐ With student information still displayed on the screen, the [F7] key is used for adding or editing a comment. Press [F7]. The following screen appears:

(This screen is initially blank.)

[↓]Down	[PgDn] Next Window	[End] End of Line	[Ctrl-PgDn] End of text
[↑] Up	[PgUp] Prior Window	[Home] Beg of line	[Ctrl-PgUp] Beg of text
	[Ctrl-N] Add a line	[Ctrl-Y] Delete a line	
	[F10] Save and return	[Esc] Return without saving	

☞ Enter the information you wish. Do not press [ENTER] at the end of each line since the text automatically "wraps-around" to the next line. However, use [ENTER] between paragraphs. Use the [Backspace] and [Del] keys to delete characters. Use ← and → to move left and right without deleting characters. Use [Ins] (insert) to add text where the cursor is located. Use the keys listed below the box to perform the indicated functions. You are not limited by the size of the box.

2. Load Student CPTs Data

This option is used to convert CPTs test data into a format usable by CPMS. From the STUDENT MENU, use option **2. Load Student CPTs Data:**

1. Student Screens
2. Load Student CPTs Data
3. Delete Student Database
4. Create Student Flat File

The screen that appears after you make this selection is as follows:

Log File Conversion — Load Student CPTs Data

Please enter the drive and path of log file, e.g. A: or C:\CPTS3
Press [Enter] to begin conversion. Press [ESC] to exit

If your CPTs test data are on a floppy disk, place it in drive A. Type *A:*. Or, if the data are on your hard drive C in directory XYZ, type *C:\XYZ*. Then press [ENTER]. Your answer must correspond to the location of your CPTs test data.

You must then tell CPMS how duplicate records should be processed. A duplicate record is one in which the student ID, test date, and test code in the test data being loaded are identical to those in a record already in the database. This could mean the test was given to a student at least twice on the same day or a log file is being loaded for the second time. This may or may not be intentional. After pressing [ENTER] on the last screen the following screen appears:

What would you like to do if a duplicate record is found?

Replace record in file with new data
Leave record in file as is
Verify each duplicate

- If you choose **Replace record in file with new data**, the duplicate record in the database is replaced with the new

one. All identifying information for that student will also be replaced.

- ☐ If you choose **Leave record in file as is**, any duplicate record in the database is retained, together with the identifying information. The new record is not used.

- ☐ If you choose **Verify each duplicate**, then each time a duplicate record is found, the program will halt and give you the message **Replace duplicate record for FIRST, LAST, test #n? (FIRST** is the student's first name, **LAST** is the last name, **n** is the test number). Select **Yes** if you wish to replace the record in the database with the incoming record. You may have to press **Yes** multiple times for each student record. Choose **No** if you do not want to replace the existing record. If you choose to replace it, then the identifying information for that student will also be replaced.

After you make your selection, the conversion process will begin. A counter will appear in the message **Processing . . . Please Wait. Records Processed = nnn (nnn** is a counter). When completed, this message appears: **Finished . . . press any key. Records processed: nnn (nnn** is the number of records converted). Press any key to return to the Main Menu.

These students will now appear in the student database. After conversion, the file of test data is not deleted from CPTs. Keep track of your files so you process the correct ones. If you try to do a conversion, and the log file you specify does not exist in the directory you specify, the message **Can't find file . . . try again** appears.

☞ During the conversion, some data are not verified for accuracy. For example, a record containing an invalid major code will be accepted. However, you will not be able to change that record until the invalid major code is corrected or deleted from the record.

3. Delete Student Database

This option will delete all records from the student database. You will receive this message: **DELETE STUDENT DATABASE This function will delete all records from the student database file.** Be extremely cautious when using this option. **Ensure that you have all your data backed up before executing this**

option. To delete, select **Delete all student records** at the top left of the screen by pressing ← or →. To exit without deleting records, select **Exit.**

4. Create Student Flat File

This will create an ASCII file containing student data for any purpose you desire. When you select it you will get a message like **The flat file will be created in C:\CPMS. Press [ESC] to exit.**

- ☐ Enter the name of the file in the space provided and press [ENTER]. You will receive a box with this message: **Creating flat file . . . please wait. number of Students : nnn (nnn** is the record number, which will increase as the file is created). After the file is created, the message will be **Finished . . . press any key. Number of students: nnn.** Press any key to return to the Main Menu.

☞**CAUTION**: If this file already exists, you will get the message **This file exists . . . overwrite? Yes No.** You must be certain, when answering **Yes**, that you do indeed wish to destroy the existing file.

☞The file name format must be ***Name.Ext***. **Name** can be one through eight characters. **Ext** (the file "extension") can be zero through three characters. If **Ext** is present, the period must also be present. The record format for this flat file is in the **APPENDIX** beginning on page 118.

Reporting

Five reports are available in CPMS. See the **APPENDIX** for samples of each. Each screen will provide several choices about which records are to be printed, and whether they are to be printed or displayed in ID or last-name order. Select a box by highlighting it, using [Tab] to move to the right and [Shift-Tab] to move to the left, or by pressing [ENTER] when your choice is highlighted. [Shift-Tab] means to keep the Shift key depressed while then pressing Tab. Alternately, press [ENTER] when your choice is then highlighted. Within each box, use ↑ and ↓ to highlight and select your choices. Press [ENTER].

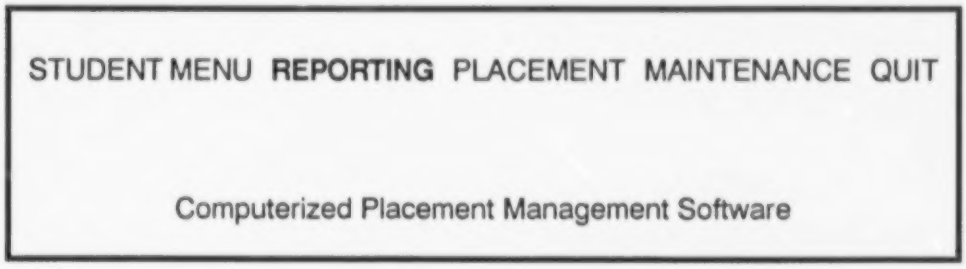
Normally, reports are printed after placement. However, you might want to print some reports prior to placement. Printing the Placement Roster will give you a printed record of all scores in the system.

You can specify a range of records for the reports. There are three options available. You can report for students whose last names fall within an alphabetical range (e.g., Adams to Davidson). You can report for students whose IDs fall within a numeric range (e.g., 100-00-0000 to 300-00-0000. Finally, you can report for students who took at least one test within a specified range of dates (01-01-90 to 01-31-90).

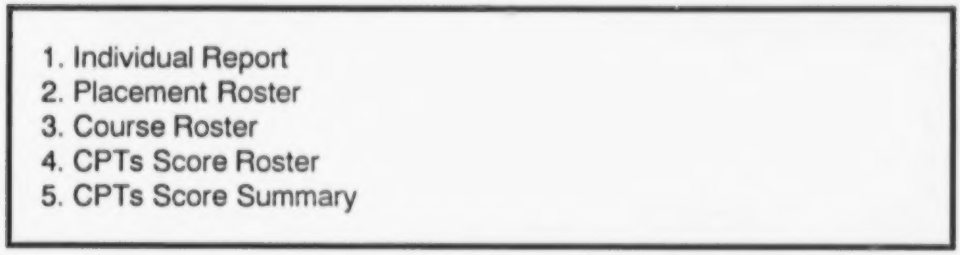
☛ When limiting reports by date, you should be aware of how you can obtain the desired information. Please see the table at the end of this **Reporting** section in the **Special Note on Limiting Reports by Date** on page 53 for a discussion of this.

Use [F8] to display the report on your screen instead of printing it. Use [F9] to print the report. Make sure your printer is powered up, has paper, and is ready to print. You can always interrupt printing by pressing [Esc] once. The printer may take a few moments until it stops printing.

From the Main Menu, select the **REPORTING** option shown highlighted below:



The following screen will appear:



1. Individual Report

The following screens appear:

Sort By:	Limit By.	Include Scores:
Name ◄	No Limits ◄	No Scores ◄
ID	Last Name	Placement Scores
	ID	Latest Scores
	Test Date	First Scores
		All Test Scores

Background	Include Supplementary	Comment
Yes ◄	Yes ◄	Yes ◄
No	No	No

↑ ↓ [TAB] [SHIFT-TAB] to scroll ... [ENTER] to select
[F8] list to screen ... [F9] print ... [ESC] exit

☐ Use ↑, ↓, [Tab], and [Shift-Tab] to make your selections as explained previously. The ◄ symbol appearing in each column will indicate your selection.

☐ If you select one of the **Limit By** items (except **No Limits**) you will see one of the following boxes at the bottom of the screen for **Last Name**, **ID**, and **Test Date** respectively:

Range: Start > End >

Range: Start > - - End > - -

Range: Start > / / End > / /

☐ Your cursor will appear in the **Start >** portion. Enter the starting **Last Name, ID**, or **Test Date**. Press [ENTER] only if you are limiting by **Last Name.**

☐ Your cursor will now appear in the **End >** position. Enter the ending **Last Name, ID**, or **Test Date**. Press [ENTER] only if you are limiting by **Last Name.**

- ☐ After your selections are made, press [F8] to see the report displayed or [F9] to print it. Sample reports appear beginning on page 136 in the **APPENDIX**.
- ☐ When displaying the report on the screen, the display will pause when the screen is full. Press any key to see the next screen.

2. Placement Roster

The following screens appear:

Sort By:	Limit By:	Include Scores:
Name ◄	No Limits ◄	No Scores ◄
ID	Last Name	Placement Scores
	ID	Latest Scores
	Test Date	First Scores
		All Test Scores

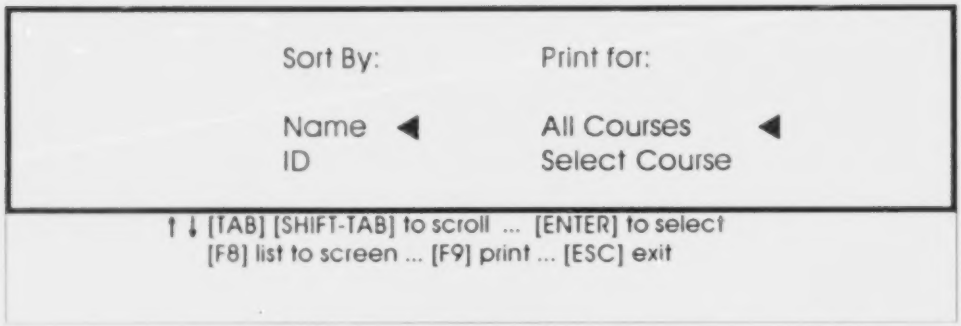
Placements					
English	Reading	Math	Other 1	Other 2	Other 3
Yes ◄	Yes ◄	Yes ◄	Yes ◄	Yes ◄	Yes ◄
No	No	No	No	No	No

↑ ↓ [TAB] [SHIFT-TAB] to scroll ... [ENTER] to select
[F8] list to screen ... [F9] print ... [ESC] exit

- ☐ Use [Tab] and [Shift-Tab] to modify your selections as explained previously. The ◄ symbol appearing in each column will indicate your selections.
- ☐ Enter any **Limit By** data exactly as in **Individual Reports** above.
- ☐ After all of your selections are made, press [F8] to see the report on the screen or [F9] to print it. Sample reports appear in the **APPENDIX** beginning on page 136.

3. Course Roster

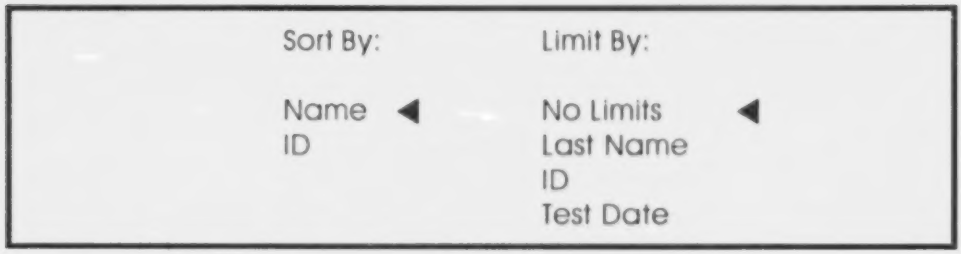
The following screen appears:

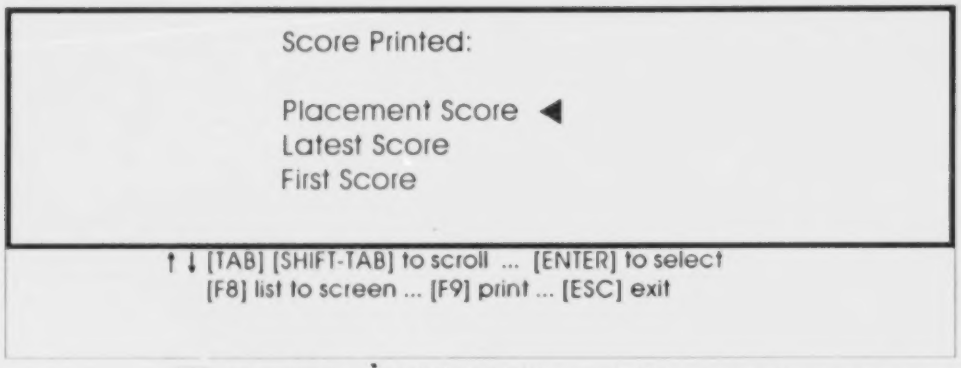

Sort By:
Print for:
Name ◀
ID
All Courses ◀
Select Course
↑ ↓ [TAB] [SHIFT-TAB] to scroll ... [ENTER] to select
[F8] list to screen ... [F9] print ... [ESC] exit

- ☐ Use [Tab] and [Shift-Tab] if you want to modify the defaults shown by a ◀. The ◀ appearing in each column will indicate your selection.
- ☐ If you choose **Select Course**, a box appears with a list of valid courses. Highlight a course and press [ENTER]. If no courses exist, you will get the message **There are no records in the database. Press any key . . . .**
- ☐ After all of your selections are made, press [F8] to see the report on the screen or [F9] to print it. Sample reports appear beginning on page 136 in the **APPENDIX**.

4. CPTs Score Roster

The following screens appear:

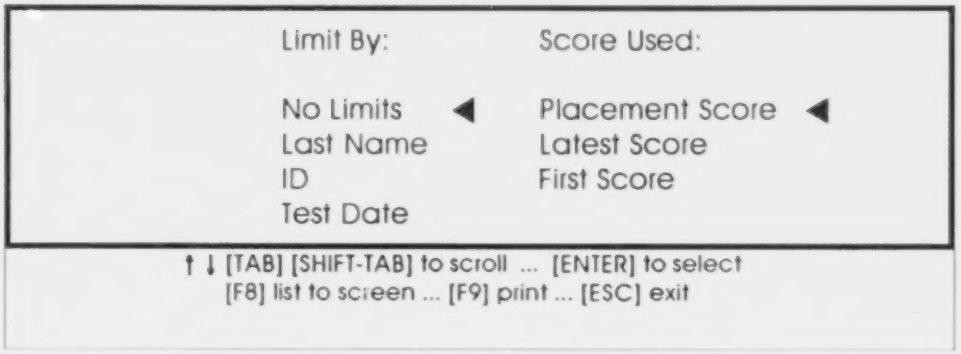



Score Printed:
Placement Score ◄
Latest Score
First Score
↑ ↓ [TAB] [SHIFT-TAB] to scroll ... [ENTER] to select
[F8] list to screen ... [F9] print ... [ESC] exit

- ☐ Use [Tab] and [Shift-Tab] to modify your selections as explained previously.
- ☐ Enter any **Limit By** data exactly as before.
- ☐ After all of your selections are made, press [F8] to see the report on the screen or [F9] to print it. Sample reports appear beginning on page 136 in the **APPENDIX**.

5. CPTs Score Summary

The following screen appears:



- ☐ Use [Tab] and [Shift-Tab] to modify your selections as explained previously.
- ☐ Enter any **Limit By** data exactly as before.
- ☐ After all of your selections are made, press [F8] to see the report on the screen or [F9] to print it. **Number of students processed: nnn** (nnn = student number) appears during processing. Press [Esc] to stop. The report will not print until all records have been processed. Sample reports appear beginning on page 136 in the **APPENDIX**.

Special Notes on Limiting Reports by Date

When limiting reports by date you should be aware of the information in the following table.

If you choose to report:	The following will appear on the report:
No Scores	No scores
Placement Scores	All placement scores for any student who has at least one placement score within that range of dates (where a placement score is a score that caused the placement of a student into a course).
Latest Scores	The student's latest score on every test if, for at least one test, the latest score was obtained within that range of dates.
First Scores	The student's earliest score on every test if, for at least one test, the earliest score was obtained within that range of dates.
All Scores	All the student's scores if, for at least one test, there is a score obtained within that range of dates.

Placement

The creation of the rules used by CPMS to determine which students will be recommended for your defined courses is up to you. CPMS does not supply any rules because each institution's placement policies are unique. The concept is simple and you have a great deal of flexibility. Further, as you use the system more and more, you learn by the experience. Continuing refinement of your rules can lead to very accurate course placements based on your students' abilities.

Because special care should be used when creating placement rules, a **separate chapter** discusses placement rules in detail. The rest of this section covers the operational aspects of placement rules, i.e., how to enter them into the system, how to begin placement, delete placements, and how to print and delete rules. You should first read the next chapter on **PLACEMENT RULES** beginning on page 80 to understand how to create these rules. Then, return here to actually enter and use them.

From the Main Menu, select the **PLACEMENT** option that is shown highlighted in the following box:

STUDENT MENU REPORTING **PLACEMENT** MAINTENANCE QUIT

Computerized Placement Management Software

The following screen will appear:

1. **Placement Rules Management**
2. Begin Placement
3. Print All Rules
4. Delete All Placements
5. Delete All Rules

1. Placement Rules Management

If you attempt to create a rule before defining a list of courses, you receive the message **You must enter course data before you may enter placement rules. Press any key . . . .** You must then add the course(s). If a major code does not exist, you must first enter the major code(s) into the system or reinstall the system specifying the CGP or SDQ majors. Reinstalling will destroy all files, so make sure they are backed up. See the **MAINTENANCE** menu beginning on page 67

to add courses or major codes. See the **STUDENT MENU** beginning on page 34 to add students.

☐ If all necessary databases exist, this screen appears:

```
Course        :
Major From    :     Description:
Major To      :     Description:
```

Enter the Course. If it does not exist, the following message appears: **Invalid Course Name Entered. Press [F8] to list course names or press any key to re-enter.** Press [F8] to list the courses. You may highlight a course from the list and press [ENTER] to select it, or press [Esc] to return to the screen.

☐ Enter **Major From** and **Major To**. These are the starting point and ending point, respectively, in the major list you are using. The **Description** of that major will automatically appear. The range you specify will determine the range of majors to which the rule you are about to create applies.

☐ If you press only [ENTER] for both **Major From** and **Major To**, **ALL** appears for each and the majors searched will go from the lowest to the highest major code in the database. The descriptions will read **All Majors**. If a valid major is entered for **Major From**, and only [ENTER] is pressed for **Major To**, the same major will appear for both. If a valid major is entered for **Major From**, any valid major may also be entered for **Major To**.

☞ If you enter a nonexistent major code, this message is displayed: **Invalid Major Code Entered. Press [F8] to list major codes or press any key to re-enter**. Press [F8] to list the codes. You may highlight a code from the list and press [ENTER] to select it, or press [Esc] to return to the screen.

☞ **Either** both **Major From** and **Major To** must be **ALL**, or neither can. You can not have only one set to **ALL**. **ALL** for the **Major From** field indicates to start the range from the first major code in the database (lowest numerical value, usually 0000). **ALL** for the **Major To** field indicates to end the range at the highest numerical

value major code in the database (usually 999). See the **Special Note about Placement Rules** at the end of this section on page 65. If a valid code was entered for **Major From, Major To** will be the same if only [ENTER] is pressed. If a rule(s) already exists for this major, this message is displayed: **n rule(s) appear for this course and one or more majors in this range. Add another? Yes/No.** The letter **n** indicates how many rules exist. If you answer *No*, and if there are two or more rules already present, you get the following message: **Enter rule number: (1-n)** where *n* is the number of rules present for the course. You should enter the number of the rule you wish to edit; the numbers correspond to the order in which the rules were created.

☐ This box might appear as follows after following this procedure. The majors range from 328 to 999:

Course	: MATH 100
Major From	: 328 Description: Forestry
Major To	: 999 Description: Undecided

☐ The screen immediately below then appears. This is where you enter your placement rule as described in the **PLACEMENT RULES** chapter beginning on page 80. A sample rule from the chapter is included for illustration:

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
Add line				

☐ Press [ENTER] to select the line **Add line.**

☐ The following box appears within the current box. The **0.00** for **Weight** is highlighted as shown:

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
Add line				

Weight	: **0.00**
T/B/S	:
Operator	:
Value	: 0.0

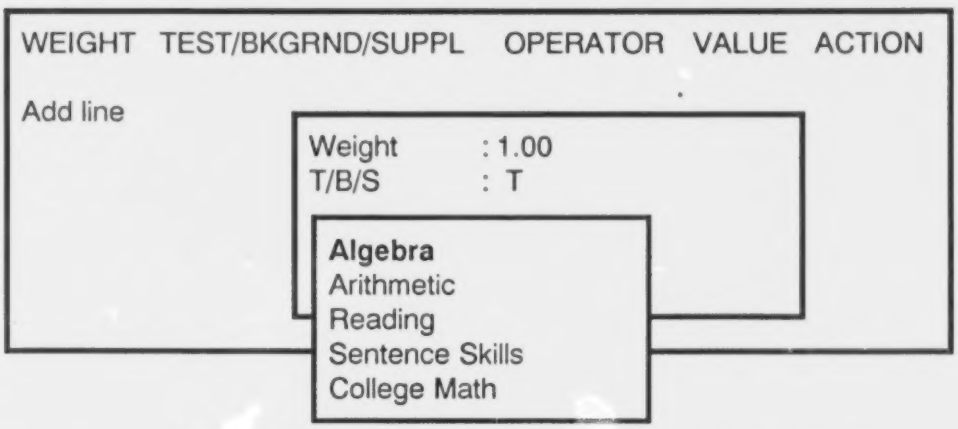
☐ Enter a value for **Weight.** Any value between 0.00 and 999.99 is acceptable. Selecting the default of 0.0 shown would be meaningless. In most cases, you will use 1.00. Press [ENTER], if necessary, to go to the next field. Press [Esc] at any time to exit from this box without saving the information.

☞The message that appears if you select Help, [F1], is **Enter the WEIGHT by which to multiply the Test / Background / Supplementary data prior to comparison with the VALUE. Press any key to remove help.**

☐ Enter *T* (for Test), *B* (for background question), or *S* (for supplementary data).

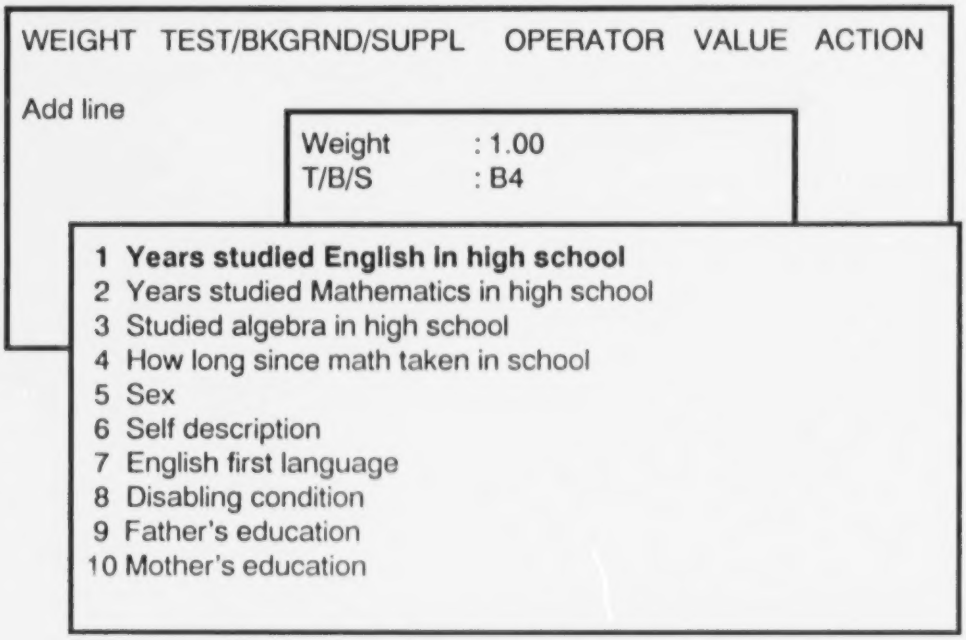
☞The Help message, [F1], is **Enter: [T]est [B]ackground question or [S]upplementary data After entering the appropriate code letter, you will be able to choose the specific test, background question, or supplementary data item pertinent to this rule. Press any key to remove help.**

☐ If *T* was entered in the **T/B/S** line, this box appears:



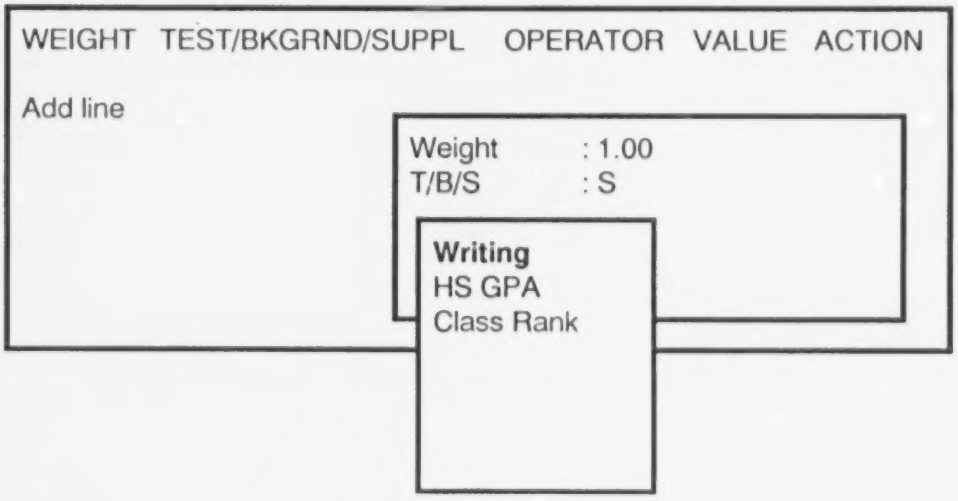
☐ Use the arrow keys to select one of the tests shown. Press [ENTER] to insert this test in the T/B/S line.

☐ If *B* was entered in the **T/B/S** line, the following box appears instead:


WEIGHT TEST/BKGRND/SUPPL OPERATOR VALUE ACTION
Add line
Weight : 1.00
T/B/S : B4
1 Years studied English in high school
2 Years studied Mathematics in high school
3 Studied algebra in high school
4 How long since math taken in school
5 Sex
6 Self description
7 English first language
8 Disabling condition
9 Father's education
10 Mother's education

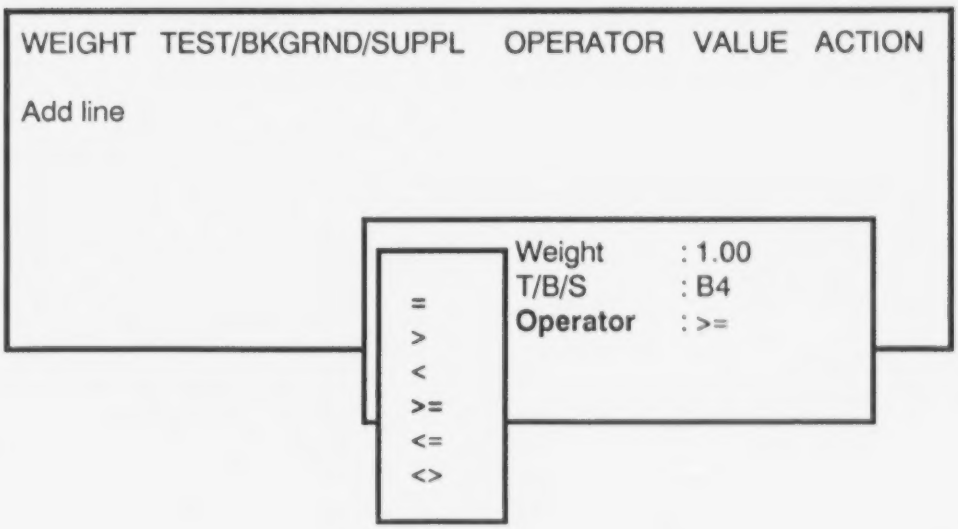
☐ Use the arrow keys to select one of the questions shown. Press [ENTER] to insert the number of the question in the T/B/S line. It will appear as **Bn** where n is the number of the question. Example: B4, as shown above.

☐ If *S* was entered in the **T/B/S** line, the following box appears instead:



☐ Three samples are shown in the box (Writing, HS GPA, and Class Rank). Up to six may appear. (You must define these using the **MAINTENANCE** menu's **Configuration** option on page 67 before you can use them in a rule.) Use ↑ or ↓ to select one of the supplementary items. Press [ENTER] to insert the item in the **T/B/S** line.

☐ Now the **Operator** option will be highlighted. Insert the operator you want to use for your test. Press [ENTER] to insert this value into the **Operator** line. This is shown below (**>=** is selected):

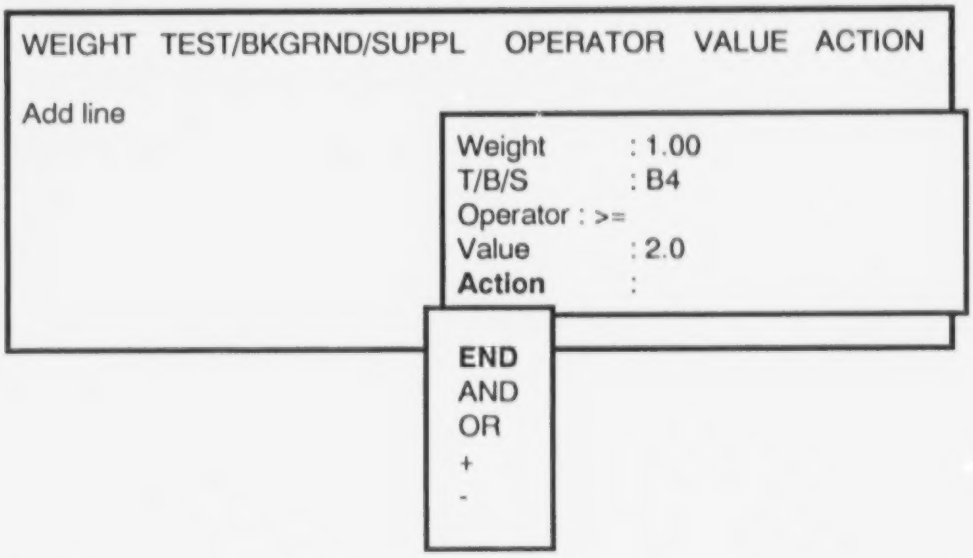


☞The Help message, [F1], is **Select the operator from the list displayed. Press any key to remove help.**

☐ The **Value** item is now highlighted. Enter the value which will be compared. Press [ENTER]. Up to 999.9 will be accepted. In the example shown below, the value of **2** is selected:

☞The message that appears if you select Help, [F1], is **Enter the VALUE with which the Test/Background/Supplemental data are to be compared. Press any key to remove help.**

☐ Finally, the **Action** item is highlighted. Select the desired item from the box displayed and press [ENTER]. In the example below, **END** is selected:



☞The Help message you get if you press [F1] is **Select the action item from the list displayed. Press any key to remove help.**

☐ Press [F10] to add this rule. **ADDED** will flash on the screen.

☞If you do not press [F10], you can continue to modify the items you just entered. When you are satisfied, press [F10].

☐ Press [Esc]. The line you have just created will appear as shown in the following screen:

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	**B4**	**>=**	**2.0**	**END**
Add line				

☐ To add additional lines to the rule, select **Add line** and repeat the process above.

☞If you select either the **+** or **-** action item, any **Operator** entries that were made will disappear. This is because they are not applicable when adding or subtracting the other information already specified to the information in the following line.

- ☐ You may use the **Placement Rules Management** option to **DELETE** or **PRINT** a specific rule. Simply enter the **Course, Major From,** and **Major To** information on the screen that appears after selecting this option. This procedure was described earlier. A message will appear stating **1 rule appears for this course and one or more majors in this range Add another? (Y/N).**

- ☐ Press *N*. Then press [F2] if you want to delete the rule. The following message will appear: **Are you sure you want to delete this rule? Yes No.** Press *Y* to delete the rule or press *N* if you changed your mind.

- ☐ Instead of pressing [F2] in the previous step, you may press [F9] to print this rule.

☞ You may wish to define a rule applying to all students within a range of majors. Later, you may wish to delete that rule for one or more majors within that range. If you then display or print the original rule, it will **not** reflect this deletion; the missing majors will not be indicated. Use the **Print All Rules** options discussed later in this section in order to see an accurate description of the majors to which the rule applies.

2. Begin Placement

- ☐ After you have created all of your rules, you may place students. Either all students can be placed or just those not previously placed. If no students exist, you will get the message **There are no records in the database. Press any key . . . .** You must first enter your student records into the system. Press [Esc] until you return to the Main Menu. Select PLACEMENT.

- ☐ Select **Begin Placement**, shown highlighted in the following box:

1. Placement Rules Management
2. Begin Placement
3. Print All Rules
4. Delete All Placements
5. Delete All Rules

☐ The following screen appears:

Which score do you want to use in placement?
Latest Score
First Score

☐ Select either **Latest Score** or **First Score** and press [ENTER]. If multiple test scores exist for one or more students, this will determine which is used.

☐ The following screen will appear:

Run Placements For:
All students
Students without placements

☐ Select the option desired. Press [ENTER]. The message **Please wait . . . Students Placed: nn** appears (**nn** is the number of the student record being processed).

☞ When placing **All Students**, all prior placements will be deleted and all students will be placed according to the current rules. When placing **Students without placements**, only those students without any placements will be placed.

☞ If, after you place students, you add, change, or delete courses, major codes, placement rules, background questions, background question answers, etc., you will probably want to place all students again. This is because the criteria and/or the data used to place them originally will have changed. This is a good reason to be as thorough as possible prior to placing students. It is **CRITICAL** that you keep track of the sequence of events regarding use of CPMS and placements so you can ensure that your placements are always current. If you are ever uncertain you can delete all placements and place students again.

3. Print All Rules

Placement rules should always be printed so that you may refer to them in case of problems. You may find that placement is not proceeding according to your requirements. Referring to a printed rule will help you resolve such problems. Each rule will be printed on a separate sheet of paper. Rules are printed in the order in which they were entered.

☐ Select **Print All Rules** from the **PLACEMENT** menu shown below. Your rules will be printed.

1. Placement Rules Management
2. Begin Placement
3. Print All Rules
4. Delete All Placements
5. Delete All Rules

- If there is a problem with the printer, the following message will appear: **The printer is not connected. Check the printer and fix the problem. Press any key to continue . . [ESC] to quit.**

- Placement rules are printed in the order in which they were entered.

4. Delete All Placements

Deleting all placements will not affect the placement rules themselves. You should do this whenever you wish to start the placement process from the beginning.

☐ Select **Delete All Placements** from the **PLACEMENT** menu that is highlighted as shown below:

1. Placement Rules Management
2. Begin Placement
3. Print All Rules
4. Delete All Placements
5. Delete All Rules

☐ The message **Are you sure you want to delete all placements? Yes No** appears. Answering *N* will return you to the Main Menu. Answering *Y* will immediately delete all placements.

☞ Exercise this option with care. Even though you can place all students again, this will take additional time.

5. Delete All Rules

Deleting placement rules will not affect the placements you made with these rules. However, **ONCE YOU DELETE THE RULES, YOU MUST EITHER REENTER THEM, OR RESTORE THEM FROM YOUR BACKUP FILES.** Once again, it is very important to make your backups every time you change information on your system.

☐ From the **PLACEMENT** menu select **Delete All Rules** which is highlighted in the following screen:

1. Placement Rules Management
2. Begin Placement
3. Print All Rules
4. Delete All Placements
5. **Delete All Rules**

☐ The message **Are you sure you want to delete all rules? Yes No** appears: Answering *N* will return you to the Main Menu. Answering *Y* will immediately delete all rules.

☛ Exercise this option with extreme care. Even though you can restore deleted rules from your **backup** disks, this will still be additional work.

Special Note about Placement Rules

CPMS distinguishes between rules for **ALL** majors and those for a specified **RANGE** of majors. When a rule for all majors is created, a single record is generated. When a rule for a specified range of majors is created, the system creates a record for each of the majors within that range. Because of this, creating a rule for ALL majors requires less disk space and less operational time.

A rule cannot contain both ALL and a specified major. Thus, you cannot specify that a rule applies from major 200 to ALL.

You are not permitted to define a rule for ALL majors and then delete it for a specific major. If you wish the rule to apply to all students except those in a specific major, first create the rule for ALL majors. Then create a different rule for the specific major. Then, for each student, CPMS will first look for a rule for that student's major. If one is present, that rule will be applied and the rule that applies to ALL majors will be ignored. Only if CPMS does not find a rule for the specific major will the rule for ALL majors be applied.

The course branch is also an important factor in determining course placements. If, for example, there is a rule for the student's specific major within the English course branch, only rules that are defined for the specific major will be considered in placing the students **in any course** within the English branch. Any rule that applies to ALL majors will be ignored within that branch. However, a rule for the specific major within one course branch does not affect the application of placement rules within another course branch. For example, the following criteria are included in placement rules for a student majoring in Accounting:

Major	Course	Branch
Accounting	MATH 201	M
ALL	MATH 101	M
ALL	ENG 101	E

The student will be considered for MATH 201 because a rule for placement in that course has been defined for his or her major.

The student will not be considered for MATH 101 because a rule exists for his or her specific major within the Math branch. If there is any rule for the specific major, a rule that applies to ALL majors will not be considered for placement into any course within the same course branch. Likewise, if there is no rule for a specific major, then CPMS considers rules for ALL majors in order to place the student.

The student will be considered for ENG 101 because there are no rules for the student's specific major within the English branch.

This completes the discussion of CPMS related to operations involving students, reporting, and placement. Maintenance of the system begins on the next page. As previously mentioned, you will have to perform several of these maintenance operations immediately after installing CPMS as well as on a continuing basis.

Maintenance

You will use the **MAINTENANCE** menu to perform a number of important functions including the creation of courses. When this menu option is selected, the nine selections shown below are displayed. Option 9 is displayed only if you have a color monitor:

1. **Configuration**
2. Reindex Databases
3. Advisor Codes
4. Advisement Text
5. Course Codes
6. Major Field Codes
7. Background Question Screen
8. Sound On/Off
9. Change Colors

1. Configuration

Selecting the Configuration option will display the following screen. Each of the entries are then reviewed:

(C)olor or (M)ono	:			
First Report Heading	:			
Second Report Heading	:			
Comment Label	:			
User Label for Other 1	:			
User Label for Other 2	:			
User Label for Other 3	:			
			Printer:	
Supplemental Label 1	:		Normal mode	:
Supplemental Label 2	:		Condensed mode:	
Supplemental Label 3	:		Width (80/132)	:
Supplemental Label 4	:		Lines per page	:
Supplemental Label 5	:			
Supplemental Label 6	:		Major Table	:

[Home]	[PgDn]	[PgUp]	[End]	[Esc] Exit
[F1] Help	[F2]	[F3]	[F4]	[F5]
[F6]	[F7]	[F8]	[F9]	[F10] Save

- ☐ **(C)olor or (M)ono:** Enter *C* or *M*. You may not enter *C* if a monochrome monitor is detected by the system.
- ☐ **First Report Heading:** Enter the first line of the heading to appear on your printed reports or screen display.
- ☐ **Second Report Heading:** Enter the second line of the heading to appear on your printed reports or screen display.
- ☐ **Comment Label:** Enter the label for the comment to be printed on an individual report or screen display.
- ☐ **User Label for Other 1 (to 3):** Enter the description of each optional placement category you will use (e.g., psychology, science, etc.).
- ☐ **Supplemental Label 1 (to 6):** Enter the label to assign to each supplementary data category (i.e., other predictors such as SAT scores or criteria (outcome) indicators).
- ☐ **Normal mode:** Enter your printer's setup string for regular print. See your printer manual. This must be in decimal. See the **Special Note on Printers** at the end of this chapter on page 77.
- ☐ **Condensed mode:** Enter your printer's setup string for condensed print. Refer to your printer manual. This must be in decimal. See the **Special Note on Printers** at the end of this chapter on page 77.
- ☐ **Width (80/132):** Enter the number of columns your printer will print (80 or 132). CPMS will automatically use 132 to print rosters if you specify 132 here.
- ☐ **Lines per page:** Enter the number of lines per page your printer will print. Refer to your printer manual. If the printer automatically skips page perforations, you may need to enter a smaller number than it will actually print. See if the printer can be set so as not to skip automatically over the perforations. This entry may take some experimentation.
- ☐ **Major Table:** You can not change this. This was selected at the time you installed your system. See the **SYSTEM INSTALLATION** chapter for details. It will be **SDQ**, (academic area of study), **CGP** (curriculum codes), or **NONE**. See page 122 of the **APPENDIX** for valid values.

☐ As before, after you make any change(s), you **must** press [F10] to save them. Press [Esc] to return to the Main Menu.

2. Reindex Databases

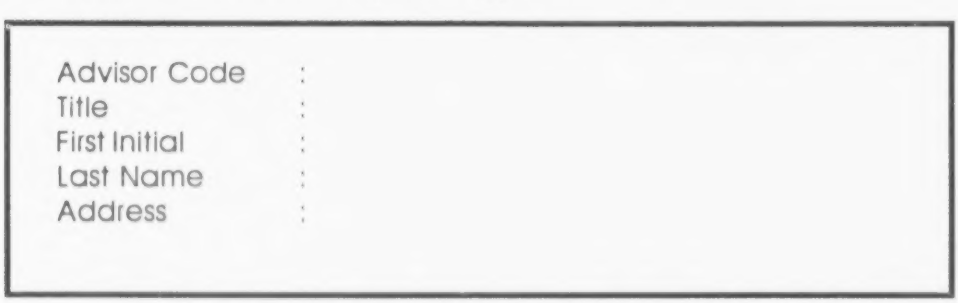
"Index files" are used to access the system databases. Occasionally, you might not be able to locate files you know exist, or some procedures take longer than usual. This might occur, for example, if you have had a power failure. Use this option to recreate the index files. The HELP message that appears is **The REINDEX function "re-sorts" the database files into the correct sequence. This function may be used if a power failure occurred the last time you used the system.**

In the upper-left corner of the screen, **Continue** and **Return** appear. Use your arrow keys to select **Continue** and press [ENTER] to reindex. The message **Rebuilding index files . . . please wait** will appear. This will take only a few moments. To not reindex, select **Return** and press [ENTER].

☞This option will also permanently delete any records that you previously told the system to delete. As far as you are concerned, they were deleted at that time. Actually, they were still there but marked as deleted. Reindexing actually deletes them. If you are deleting many records, you will regain disk space and may increase the speed of performance of the system when you reindex.

3. Advisor Codes

This option enables you to add advisor codes to the system or list those that exist. When you select it, the following screen appears:



☐ As with student information, use [Home], [PgDn], [PgUp], and [End] to scan the database for existing codes.

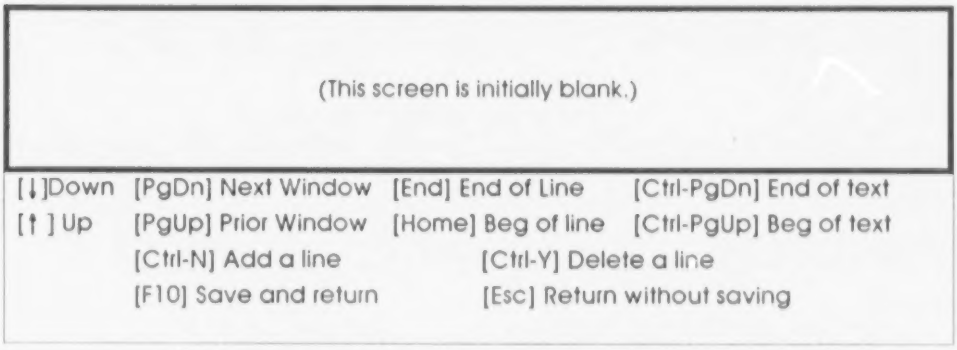
You may edit these in the normal manner. Or, you may add codes by entering the information in the screen above. Be sure to use [F10] to save any changes or additions. Use [F2] to delete existing entries. Use [F8] to list entries and [F9] to print them. When using [F8], you may select an advisor code and press [ENTER] to have this record appear on the screen for editing.

☐ If you enter an advisor code that does not exist, a message will indicate **Advisor not found . . . add?** Select **Yes** or **No.**

☞ If an advisor code is deleted, all occurrences of the code in the student database are also deleted. Also, you must add an advisor code to the database before you can use it on any of the student screens.

4. Advisement Text

This optional feature allows you to enter text that will appear on all student individual reports. You can enter as much text as you wish. When you select this option, the following screen appears:


(This screen is initially blank.)
[↓]Down [PgDn] Next Window [End] End of Line [Ctrl-PgDn] End of text
[↑] Up [PgUp] Prior Window [Home] Beg of line [Ctrl-PgUp] Beg of text
[Ctrl-N] Add a line [Ctrl-Y] Delete a line
[F10] Save and return [Esc] Return without saving

☐ Enter the desired information. Do not press [ENTER] at the end of each line since the text automatically "wraps-around" to the next line. Use the [Backspace] and [Del] keys to delete characters. Use ← and → to move left and right without deleting characters. Use [Ins] (insert) to add text where the cursor is located. Use the keys listed above to perform the indicated functions.

☐ When you are done, press [F10] to save the text.

☐ Press [Esc] to exit without saving any changes.

5. Course Codes

This option **must** be used to create courses to make placements. Up to 10 alphanumeric characters can be used for the course name. In the following screen, any additional course branches you defined using the MAINTENANCE menu's **Configuration** option will appear next to **1 =**, **2 =**, and **3 =**:

Course Name:
Course Branch:

E = English
R = Reading
M = Mathematics
1 =
2 =
3 =

- ☐ As with student information, use [Home], [PgDn], [PgUp], and [End] to scan the database for existing codes. You may edit these in the normal manner.
- ☐ Add the Course Name and press [ENTER]. If you enter a course code that does not exist, a message will indicate **Course not found . . . add?** Select **Yes** or **No**. If you enter *Y* (or press [ENTER]), press [ENTER] a second time. Then enter the Course Branch on the next line. Press [F10] to save any changes or additions. Press [Esc] to clear the screen so you can add the next course.
- ☐ Use [F2] to delete existing entries. Use [F8] to list entries and [F9] to print them. Use [ENTER] after adding data. The valid values for the **Course Branch** appear in the second box.

☞ You can use the valid branches shown in the second box. When you use 1, 2, or 3, you can label these using the **MAINTENANCE** menu's **Configuration** screen shown on page 67.

☞ When searching for a course code, or using it when defining placement rules, you must define and use it exactly the same way. For example, **ENG_101** is not the same as **ENG101**.

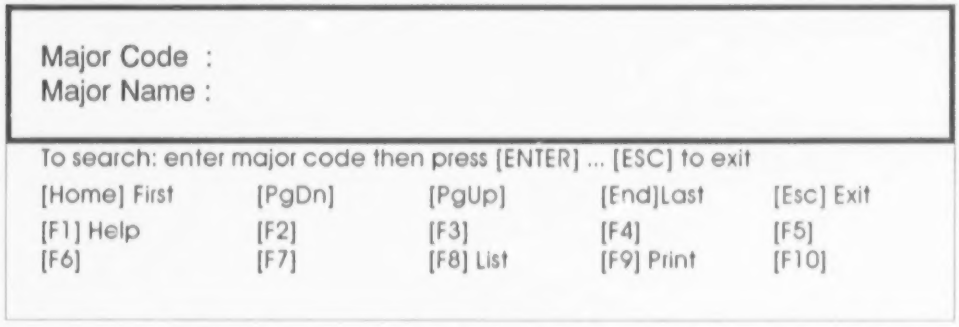
☞ The **Course Branch** is important because it determines the field in the placement reports and rosters where the course is displayed.

☛ CAUTION: If a course code is deleted, all references to that code are also deleted. Any placements in that course are deleted as are any rules based on the deleted course. ***USE EXTREME CARE IN DELETING COURSES!***

6. Major Field Codes

This option is used to scan the database for existing codes and to add, delete, display, and print them. Major codes must be added before you enter them on the student screens or use them to define placement rules, even if you use zeroes (0000). When you install CPMS, you select either SDQ, CGP codes, or NONE. See the **GLOSSARY** for their correct usage.

When the **Major Field Codes** option is selected, the following screen is displayed:



☐ As with student information, use [Home], [PgDn], [PgUp], and [End] to scan the database for existing major codes. You may edit these in the normal manner. Or, you may add major codes by entering the information in the screen. Be sure to use [F10] to save any changes or additions. Use [F2] to delete existing entries. Use [F8] to list entries and [F9] to print them.

Note: As soon as information appears in the box, the [PgDn], [PgUp], and [F2] become available for your use as shown below:

To search: enter major code then press [ENTER] ... [ESC] to exit				
[Home] First	[PgDn] Next	[PgUp] Prior	[End]Last	[Esc] Exit
[F1] Help	[F2] Delete	[F3]	[F4]	[F5]
[F6]	[F7]	[F8] List	[F9] Print	[F10] Save

- ☐ If you enter a nonexistent major code, a message will indicate **Major Code not found . . . add? Select Yes or No.**
- ☐ Major codes must consist of numbers only. CPMS will automatically left-justify the code.
- ☐ As with student information, use [Home], [PgDn], [PgUp], and [End] to scan the database for existing codes. You may edit these in the normal manner.
- ☐ Add codes by entering the information in the screen above. Be sure to use [F10] to save any changes or additions. Use [F2] to delete existing entries. Use [F8] to list entries and [F9] to print them. Press [ENTER] after adding data.
- ☐ When you use [F8] to list the codes, they may not all fit on the screen at the same time. As usual, use [PgDn], [PgUp], ↑ and ↓ to scroll. Use [ENTER] to select a code.

☛ **CAUTION**: If a major code is deleted, all references to that code are also deleted. Also, any rules based on the deleted major codes are deleted. ***USE EXTREME CARE IN DELETING CODES!***

7. Background Question Screen

This option permits you to add, edit, list, and print background questions. You are not limited to those supplied with your CPMS software. When you select this option, a screen with a shaded background appears. The function keys and the other keys are indicated below it in the usual manner:

[Home]	[PgDn]	[PgUp]	[End]	[Esc] Exit
[F1] Help	[F2]	[F3]	[F4] Add Stem	[F5]
[F6] Edit	[F7]	[F8] List	[F9] Print	[F10]

- ☐ Use [F8] to list the questions. Use [PgDn], [PgUp], ↑ and ↓ to scroll. Use [ENTER] to select a question. You can **edit** these questions only in the **MAINTENANCE** menu.

- ☐ When you select one of the questions, the possible answers for that question also appear on the screen at the same time. An example appears below. The question selected from the first box to illustrate this is **Disabling condition**:

1 Years studied English in high school
2 Years studied mathematics in high school
3 Studied algebra in high school
4 Years since last mathematics course
5 Sex
6 Self description
7 English first language
8 **Disabling condition**
9
10

0 None
1 Blindness or other visual impairment
2 Deafness or other hearing impairment
3 Paraplegia
4 Learning disability
5 Other neurological or orthopedic impairment
6 Other
7 Omit

- ☐ Press [Esc] twice to return to the screen with the shaded background.

- ☐ To edit the background question (stem) and/or the possible answers, press [F6]. The current list of questions appears as above.

- ☐ Select the question desired. Press [ENTER]. In the example below, **Disabling Condition** is again used as an example.

Stem : 8 **Disabling Condition**
Option: 0 None
1 Blindness or other visual impairment
2 Deafness or other hearing impairment
3 Paraplegia
4 Learning disability
5 Other neurological or orthopedic impairment
6 Other

- ☐ Up to 10 answers (0 through 9) are allowed. Press [ENTER] or use ↑ and ↓ to select either the stem or one of the answers. The keys available for your use appear immediately below the box:

[Home]	[PgDn]	[PgUp]	[End]	[Esc] Exit
[F1] Help	[F2]Delete	[F3]	[F4]	[F5]
[F6]	[F7]	[F8]	[F9]	[F10] Save

- ☐ To edit a background question or one of the possible answers, use ↑ and ↓ to move the highlight bar to the desired area. Press [ENTER]. Then use the arrow keys to go to the desired place in the question or answer and make the desired changes. Press [ENTER]. Then press [F10] to save any changes.

- ☐ To delete a question and its options, highlight the question and press [ENTER]. Then press [F2]. You will see the message **Are you sure you want to delete this question?**. Answer Yes to delete the question or No to leave it unchanged. The list of questions will now show **<Deleted>** next to the number of the question you deleted (this will not appear if the last question is deleted). Deleted questions can be edited later.

- ☐ To add a question, and its possible answers (up to 10 answers), press [F4] after the original blank (shaded) screen appears. You will see the following screen:

```
Stem :  11
Option:  0
         1
         2
         3
         4
         5
         6
         7
         8
         9
```

☐ Use the arrow keys to position the cursor. Enter the background question and up to ten (10) answers to that question. Press [F10] to add these to the database. The system will automatically assign the next available question number. You can have a maximum of 20 stems. From the original screen, press [F9] to print the questions.

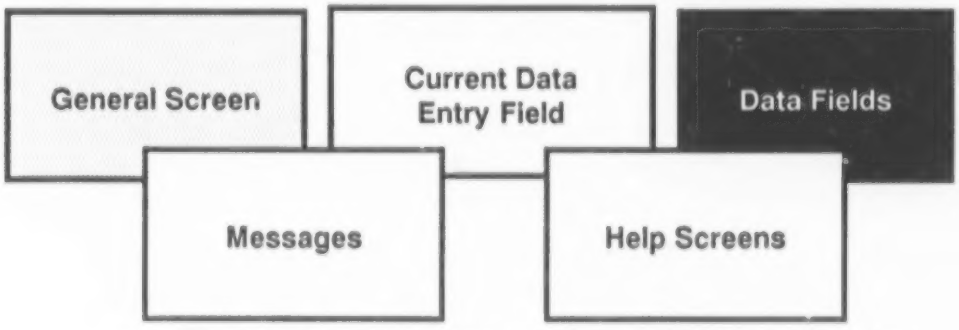
8. Sound On/Off

☐ When this item is selected, the upper-left corner of the screen will show **Sound On** and **Sound Off**. Select either one with the arrow keys.

☞ When sound is turned on, there are two types of sounds you may hear. One signifies an error, the other signifies that there is a question on the screen you must answer. The latter sound is also used occasionally to get your attention.

9. Change Colors

This entry is displayed on your screen if you have a color monitor. When you select it, the following screen appears:



☐ Select any of the items at the very top of the screen using the arrow keys. Press [ENTER]. An arrow will point to the box you selected.

☐ Use ↑ and ↓ to change the selected box(es) to the desired colors. Press [ENTER] to keep your selections. Press [Esc] to return the box(es) to the original color.

- ☐ Press [Esc] to exit the screen. You will be asked **Save colors to disk?** If you select **Yes,** future sessions will use these new colors. If you select **No**, only the current session will show these colors.

☞ The default colors that come with CPMS and appear on a color monitor are as follows:

- General Screen: white letters , blue background
- Current entry field: blue letters, turquoise background
- Data fields: yellow letters, blue background
- Messages: bright white letters, red background
- Help screens: bright white letters, magenta background

Quit

- ☐ This menu is used to stop using the system. When you select this option, you must select either **Yes** or **No**.
  - ☐ Select **No** to return to the Main Menu screen.
  - ☐ Select **Yes** to quit. A message indicates **Are you sure you want to quit?** Select **Yes** to exit the system. Select **No** to return to the Main Menu.

☞ To use the system again, you must restart it. Type *CPMS* while in the root directory, C:\>.

Special Note on Printers

A printer setup string is information supplied to the printer so it will print in the desired manner. It is sent to the printer before the report you wish to print. One setup string will cause it to print normally, and another will cause it to print in condensed mode. CPMS automatically switches to **Condensed mode** for roster reports if you specify a **Width** of 80. The proper setup string will be found in the manual for your particular printer. You should enter these for **Normal mode** and for **Condensed mode**. They must be entered in decimal format.

Condensed mode will enable you to print more characters per line. These strings, and other information that CPMS will send to the printer, will enable most dot-matrix printers to print correctly. Laser printers should print properly in normal print mode. Normal print will yield correctly formatted reports with one exception: placement rosters should be limited to three placement branches. Any more than that will cause the report to be improperly formatted. For this situation, condensed printing is required. Therefore, if your printer does not have condensed print capability, you are limited to three placement branches in the placement roster.

If you have a laser printer, study your printer manual to see which fonts are supplied with the printer. Program the printer itself, if it is not already done, to use a 16.6 pitch or smaller font as the default font. The instructions will be in your manual. Then, enter the proper code for the printer's "reset" command into **Condensed mode** on your screen. For example, for a Hewlett Packard LaserJet Series II printer the reset code is 69. This will cause the printer to reset itself each time you print a report so that the font you programmed as the default will automatically be used.

PLACEMENT RULES

The previous **System Operation** chapter included a section explaining how to enter placement rules, place students, etc. This chapter explains how to formulate and create these rules. Once you understand how to do this, return to the **System Operation** chapter to actually enter the rules.

Because the accuracy of these rules is so important to the proper placement of your students, we have taken extra care in this chapter to explain these rules. Actual examples are included. **Please study this chapter carefully**, and then reread it as often as necessary, until you understand the material. If you only need to use simple rules, just study the first several pages; for more complex rules, study the remainder of the chapter.

Overview

Placement rules are a reflection of the policies of your institution regarding the recommended placement of students into courses. The rules define the criteria used by CPMS to carry out these policies. The courses and major codes must be added to your system before creating the rules or placing students. As courses and major codes are added, changed, or deleted, you may have to modify your placement rules accordingly. The general procedure to follow appears below. The order is not critical, as long as all of the steps are completed. Generally, the system will not allow you to create placement rules, or to obtain placement recommendations, unless these procedures have been followed.

- ☐ Create the student database.
- ☐ Add any desired supplementary data for each student.
- ☐ Add the courses into which students will be placed.
- ☐ Add the major codes you will use or use the Major Code table supplied (CGP or SDQ), or do both.
- ☐ Ensure that you have installed the standard background questions, add your own, or do both.
- ☐ Ensure that the allowable answers for the background questions are what you want.

These steps are necessary, for when you create your rules the system tests for the presence of the information needed to make decisions about student placement. If a student is to be placed into a specified course only if he or she has a specified major, obviously both the course and the major must exist.

Placement Rule Examples

Perhaps the best way to understand what a rule looks like, and what it means, is to examine one in detail.

When you select the **PLACEMENT** menu's **Placement Rules Management** option, you will see the following screen:

```
Course       :
Major From   :     Description :
Major To     :     Description :
```

The course and major information, which must have previously been entered into the system, are keyed first. The descriptions for the majors you have entered appear automatically as illustrated. Then, the second screen shown below appears. The placement rule is entered there. A very simple rule is illustrated:

```
Course       : MATH 301
Major From   : 300 Description : Computer and information sciences and tech
Major To     : 307 Description : Systems analysis
```

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	College Math	>	90	END

This placement rule will place students having major codes in the range of 300 through 307 into course MATH 301 if the student achieved greater than 90 in the College-Level Mathematics test (The **>** symbol means "greater than."). This is shown by "**College Math > 90**" in the rule. **END** means that this is the last line in this rule. In this example, it is also the only line. Each rule can contain up to 30 lines. This means you can make it as simple or as comprehensive as you desire. The **1.00** shown under the **WEIGHT** column will be discussed later in this chapter. Note that if you wanted to place students enrolled in majors other than 300 through 307, you would need to create rules for them too.

All rules are created in the same way. You enter the course to which the rule applies (**Course**), the starting major (**Major From**), and the ending major (**Major To**). Then, on the second screen, you enter from one through 30 lines. Each line must contain a weight (**WEIGHT**), whether the line is checking for a test (**TEST**), background question answer (**BKGRND**) or supplementary information (**SUPPL**), the operator (**OPERATOR**), the value being checked (**VALUE**), and the relationship between this line and the following lines in this rule, if any (**ACTION**).

Now let us slightly increase the complexity of this rule. We want it to place students having major codes ranging from 300 through 307 into MATH 301 if the student achieved greater than 90 in the College-Level Mathematics test **AND** **either** greater than 90 in the Arithmetic test **or** greater than 85 in the Algebra test. The rule appears in the following two boxes:

Course	: MATH 301
Major From	: 300 Description : Computer and information sciences and tech
Major To	: 307 Description : Systems analysis

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	College Math	>	90	AND
1.00	Arithmetic	>	90	OR
1.00	Algebra	>	85	END

- ☐ If the student had a major code less than 300 or greater than 307, he or she will not be placed in MATH 301, assuming no other rules existed for this course. This is because the valid range of major codes is from 300 through 307 only.
- ☐ If the student had a major code from 300 through 307, and received greater than 90 in the College-Level Mathematics test, and greater than 90 in the Arithmetic test but not greater than 85 in the Algebra test, he or she will be recommended for placement into MATH 301.
- ☐ If the student had a major code from 300 through 307, and received greater than 90 in the College-Level Mathematics test, not greater than 90 in the Arithmetic test, but greater than 85 in the Algebra test, he or she will be placed into MATH 301.
- ☐ If the student did not receive greater than 90 in the College-Level Mathematics test, he or she will not be placed into MATH 301 no matter what was received in Arithmetic or Algebra.

We will now study this same rule even further. It is shown once again below:

Course : MATH 301
Major From : 300 Description : Computer and information sciences and tech
Major To : 307 Description : Systems analysis

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	College Math	>	90	AND
1.00	Arithmetic	>	90	OR
1.00	Algebra	>	85	END

All rules are read from left to right and from top to bottom like a book. This rule is read as described below. For the moment, we will ignore the values of 1.00 shown for **WEIGHT**. The **>** sign means **greater than**. It is important to note why two of the items in the following list are indented. We are simply trying to emphasize that **either** of those two items needs be true.

- ☐ **If** the student has a major code between 300 and 307,
- ☐ **and** College Level Mathematics is greater than 90,
  - ☐ **and <u>either</u>** Arithmetic is greater than 90,
  - ☐ **<u>or</u>** Algebra is greater than 85,
- ☐ **then** the student will be placed in course MATH 301.

This example is presented twice because it is essential that you understand placement rules thoroughly. Only then can you create them and enter them into your system. Let's go through two more rules that vary slightly from those above. Say we have the following rule:

Course : ENG 102
Major From : 200 Description : Business and commerce
Major To : 600 Description : Home economics

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	Arithmetic	>	75	OR
1.00	Algebra	>	90	AND
1.00	Reading	>	90	END

What do you think this rule means? **STOP** before you read the answer below. Try to figure it out yourself first. The answer is:

- ☐ **If** the student has a major code between 200 and 600, **and**
  - ☐ **<u>either</u>** the Arithmetic score is greater than 75,
  - ☐ **<u>or</u>** the Algebra score is greater than 90,
- ☐ **and** the Reading score is greater than 90,
- ☐ **then** the student will be placed into ENG 102.

Now we will explain the purpose of the **WEIGHT** column. In each of the examples above, the **Weight** was always 1.00. This means in the last example that:

- ☐ **If** the student has a major code between 200 and 600, **and**
  - ☐ **either** 1.00 multiplied by the Arithmetic score is greater than 75,
  - ☐ **or** 1.00 multiplied by the Algebra score is greater than 90,
- ☐ **and** 1.00 multiplied by the Reading score is greater than 90,
- ☐ **then** the student will be placed into ENG 102.

In this example, the weight 1.00 is basically meaningless. However, it can be very useful for emphasizing items. For example, you might want to set up a rule to place a student into a course if **twice** the score on Arithmetic **plus** the score on Algebra is equal to or greater than 250. You could use such a rule to require good scores in both Arithmetic and Algebra, but to emphasize Arithmetic. **STOP** before you look at the answer below. Try to write this rule yourself. The answer follows (notice the + sign):

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
2.00	Arithmetic			+
1.00	Algebra	>=	250	END

Before we go further, let us repeat how a rule is created:

- ☐ Enter the **course** first.
- ☐ Enter the **Major From**. If nothing is entered, (that is, you simply press [ENTER]) the system assumes **ALL**. **ALL** means to start from the numerically lowest major code in the database.
- ☐ Enter the **Major To**. If nothing is entered, the system repeats the **Major From** code.
- ☐ The descriptions appear automatically and correspond to the majors entered. If you entered nothing, to indicate **ALL**, the description is **All Majors**.

☐ Then create the rule using the second box. If you wish, write it on paper first, and then enter it.

We will now go into somewhat more into depth with the following rule:

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	Reading	>	75	OR
1.00	Arithmetic	>	90	AND
1.00	Algebra	>	85	END

Each of the lines is called a **condition**. Thus, **1.00 multiplied by the Reading score greater than 75** is one condition. Each of the other two lines is also a condition. Each rule can contain from one to 30 conditions or lines. In the rule shown above, let's call line one condition A, line two condition B, and line three condition C.

Using A, B, and C, instead of writing out the conditions themselves, this rule becomes:

If **either** A **or** B, **and** C, the student will be placed into the course. It is not important which notation you use. What is important is that you use whatever you are most comfortable with and then use that technique for defining rules. The A-B-C style is nothing more than a shorthand notation.

It should now be obvious what the various columns mean. The **WEIGHT** has already been described. The **TEST/BKGRND/SUPPL** simply indicates that either a test score, an answer to a background question, or supplementary data is to be considered. **VALUE** is the actual value of the test, background question answer, or supplementary data item you are examining. You have already used the **OPERATOR** and **ACTION** fields, and these are now explained more fully:

The **OPERATOR** field is used to express how the variable listed under **TEST/BKGRND/SUPPL** is to be viewed. The following lists the valid operators you can use in rules:

=	The variable must be equal to VALUE
>	The variable must be greater than VALUE
<	The variable must be less than VALUE
>=	The variable must be greater than or equal to VALUE
<=	The variable must be less than or equal to VALUE
<>	The variable must be unequal to VALUE

The **ACTION** values used so far were **AND**, **OR**, and **END**. There are also + (plus) and - (minus). These are explained below:

END Specifies the last line in a rule

AND The preceding condition must be true **and** the next condition must also be true

OR **Either** the preceding condition **or** the next condition must be true

+ The **variable** just specified, **plus** the variable that follows, must meet some condition

- The variable just specified, **minus** the variable that follows, must meet some condition

The following example shows how + and - are used. It is important to note that when + or - are used, **OPERATOR** and **VALUE** can **not** be. When you enter either + or -, **OPERATOR** and **VALUE** will automatically be deleted. The rule below states that if the Arithmetic Score **plus** the Algebra score is greater than or equal to 175, the student will be placed into the course:

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	Arithmetic			+
1.00	Algebra	>=	175.0	END

More Rules about Rules

The following items describe limitations on rules. Other requirements and suggestions are included. Some of these are repeated from above:

- ☐ Each rule must refer to a single course only.
- ☐ Each course must have at least one rule associated with it or students cannot be placed into it.
- ☐ More than one rule per course and major code can be created. They will be treated in an either/or manner. This means that if a student is placed by meeting the conditions in the first of two rules for a course, the second rule will be ignored. If the student is not placed by the first rule, the second rule will then be examined. An example appears later.
- ☐ The starting major code, or **ALL**, must be specified in the **Major From** field. **ALL** means that the starting major is the numerically lowest major in the major list.
- ☐ The ending major code, or **ALL**, must be specified in the **Major To** field. **ALL** means that the ending major is the numerically highest major in the major list.

☛ Either both **Major From** and **Major To** must be **ALL**, or neither can. You cannot have only one field set to **ALL**.

☛ To create a rule for a single major, enter the same value for both **Major From** and **Major To** (or enter **Major From** and just press [ENTER] for **Major To**).

- ☐ A rule must have at least one condition (line).
- ☐ Any of the following can be included in the column of the rule box reading **TEST/BKGRND/SUPPL:**
  - One or more scores on the Computerized Placement Tests (CPTs)
  - The number of the answer chosen in answering a background question
  - One or more values entered through the keyboard into the supplementary data fields

☞ The number entered for the response to a background question corresponds to the **number** of the background response, not to the value of the answer itself!

- ☐ If you enter a rule for one or more specific majors for a course, you should also enter a rule for the same course for the remaining majors. This will ensure that students having other majors can be placed, if you want to allow them access to the course. If you do not, then students enrolled in these other majors will not be placed into the course. The students for the specific majors will be placed in the course according to the rules for those majors. All other students will be placed in the course according to the rules for all other majors.

- ☐ You can delete a rule for a major. If you do, those students will then be recommended for placement only if a rule exists to place all students into the course.

- ☐ CPMS will determine, for each course, if there are any rules for a particular student's major. If there are, they are evaluated and any rules defined for all majors do not apply. If there are not, then the rules for **ALL** majors are followed. (See Special Note about Placement Rules on page 65 for further information.)

More Examples

More examples will help reinforce what you have learned so far. Study these carefully until you fully understand them. You might then want to create some test data on your system before actually using it, perhaps after completing the **Tutorial**. When you are ready, you can either delete all the test data or reinstall the system. The latter is the safer procedure.

In the examples that follow, some use the A-B-C notation described earlier and others show the rules themselves.

- ☐ **A and B and C** means that all three conditions must be true for the student to be recommended for placement into the course.

- ☐ **A or B and C** means that Either A or B, and C must be true. The comma (,) in this statement is critical. If C is true, **and** either A or B is true, the student will be placed. This same rule can also be stated: **C and A or B**.
- ☐ **A or B or C** means that if any one (or more) condition(s) is true, the student will be placed.
- ☐ **A and B or C and D** means that the student will be placed only if:
  - A is true, **and**
  - **either** B is true **or** C is true, **and**
  - D is true

☛ This example is an important one to study. It will help you understand how **or** and **and** are used. One helpful trick is to use parentheses, ( ), when working on complex placement rules. Always insert them around the two conditions on either side of an **or**. Do this mentally or on paper. The previous example then becomes **A and (B or C) and D**. The trick is to **always evaluate what is inside the parentheses first.** In this example, in order for the condition **(B or C)** to be true, **either** B **or** C must be true. This means that if **neither** B or C is true, then it is impossible for A **and** (B or C) **and** D to be true. So, even if A is true, and D is true, the rule still fails, and the student will not be placed.

The final example will include much of what was discussed above. Assume that you want to set up rules to recommend placement of students according to the following criteria:

- Students are to be placed into course ADP 102, Advanced Data Processing.

  Students having a Computer Science major, major code 302, must meet the following conditions to be placed into this course:
  - Algebra test score plus Arithmetic test score greater than or equal to 180, **and**
  - **Either** Reading score greater than 85 **or** Sentence Skills score greater than 85, **and**
  - The high school grade-point-average (supplementary data) is greater than 3.5, **and**

- The answer to the background question **Years studied mathematics in high school** is equal to 3 (four years), or equal to 4 (more than four years).

Furthermore, students not in the Computer Science major 302 may be placed into the course, but according to somewhat different criteria:

- Algebra test score plus Arithmetic test score greater than or equal to 190, **and**
- **Either** reading score greater than 90 **or** Sentence Skills score greater than 90, **and**
- The high school grade-point-average (supplementary data) is greater than 3.7, **and**
- The answer to background question number 2 (**Years studied mathematics**) in high school is equal to 3 (four years), or equal to 4 (more than four years).

How do we start? Examining the criteria shows that the rules are essentially the same except that students who are not Computer Science majors will be allowed to enter the course only if they meet slightly more stringent requirements. Each rule examines test scores, supplementary data, and background question answers. Simplifying the conditions, and using the A-B-C notation, may help you. Each of these rules is of the type **A and (B or C) and D and (E or F)**. **A** corresponds to the Algebra plus Arithmetic test score lines, **B** to the reading score, **C** to the Sentence Skills score, **D** to the high school grade-point-average, and **E** and **F** to the years studied mathematics.

We obviously need two rules: one for Computer Science majors, and one for all other majors. Once you complete this thought process, the first rule is written as follows and consists of the two screens shown below:

```
Course      : ADP 102
Major From  : 302 Description : Computer Science
Major To    : 302 Description : Computer Science
```

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	Algebra			+
1.00	Arithmetic	>=	180.0	AND
1.00	Reading	>	85.0	OR
1.00	Sentence Skills	>	85.0	AND
1.00	HS GPA	>	3.5	AND
1.00	B2	=	3.0	OR
1.00	B2	=	4.0	END

Note the correspondence between the lines in the rule and the criteria needed. Once you study these, you can see that it is really quite simple. The trick is to ensure that the criteria are developed carefully before the rule itself is written.

The second rule is written as follows:

Course : ADP 102
Major From : ALL Description : All Majors
Major To : ALL Description : All Majors

WEIGHT	TEST/BKGRND/SUPPL	OPERATOR	VALUE	ACTION
1.00	Algebra			+
1.00	Arithmetic	>=	190.0	AND
1.00	Reading	>	90.0	OR
1.00	Sentence Skills	>	90.0	AND
1.00	HS GPA	>	3.7	AND
1.00	B2	=	3.0	OR
1.00	B2	=	4.0	END

This is the same as the first rule except the **VALUE**s are different. In each of these, note that **B2** (background question number 2) must be used instead of the question itself (CPMS inserts the question number for you after you select the question. Also, 3.0 and 4.0, which are the numbers of the response to the question, must be used instead of the response itself. See the **APPENDIX** for the valid response numbers to the standard questions. If you modify these, or add your own, jot them down or print them out so you can use them when creating rules.

You might ask which rule would CPMS look at to place a student enrolled in major 302 into course ADP 102. Would CPMS look at the second rule first, and

reject the student because his or her Algebra plus Arithmetic scores was greater than 180.0 but less than 190.0? The answer is no, because CPMS will always first examine rules applicable to the major code of each student.

With seven lines each, the rules above already have great power in recommending student class assignments. Imagine what you can do with up to 30 lines per rule, not to mention multiple rules for each course/major code combination. You are virtually unlimited in what you can do. Any criteria or constraints you wish to set up for class placement can be accomplished using CPMS.

Special Considerations

A number of situations might arise where you can make an error if you are not careful. These are discussed below. **Please read these carefully!**

- ☐ The major code in a rule must be a valid code. You will not be permitted to use an invalid code in creating a rule.
- ☐ **Before creating placement rules, ensure that your major field code list is accurate** by reviewing it carefully and ensure that all student records contain valid major codes. This is because a rule defined for a range of major codes will not place any student having an invalid major code, even if that code falls within the range specified in the rule. Placement will still not occur even if this major code is later added to the major code list. You would have to add additional rules specifically referring to the new major code. This was done by design to eliminate the necessity of the system checking all course-major combinations for all rules each time a major code is added or a rule is edited. Incorporating this capability into CPMS would have significantly degraded the performance of the system.
- ☐ If you want to make a placement into a remedial course if the student scores less than 65 in a test, or did not even take the test, do **not** simply use a rule indicating **Algebra < 65**. Such a rule could not be used because if the student did not take the test, the score would **not** be zero. There would be **no** score. If the test does not exist, the student would simply be skipped. However, the following paragraph provides for placing a student based on the lack of a test score.

- ☐ CPMS rules use zeroes (0) for the absence of a score. Any rule, for example, placing a student if a score = 0 will place a student who has no score. It is not possible for a student taking a test using CPTs to obtain a zero score. Therefore, CPMS will never confuse the absence of a score with a zero score.

- ☐ CPMS uses the absence of a **supplementary** variable to place a student if you specify *variable = 0* in the rule. Therefore, if you use supplementary variables, do not define a rule using variable = 0 unless you actually do wish to place students with missing data.

- ☐ **Background questions** are not treated in the same way as the supplementary variables discussed immediately above. Background options are numbered from 0 to 9. Thus, if your rule states *option = 0*, it will place a student who chose the first option. You probably will not want a rule to place a student because of missing background data; however, if you did you could specify *variable 1 <> 0 and variable 2 <> 0*, etc.

- ☐ We showed above that you can have different rules for a single course for students in different majors. It is easier to write these rules depending on the order used. For example, say that students in most majors are to be placed into a course according to a single rule (one or more conditions). However, students in a small range of majors are placed according to a different rule. Finally, students in one other major are never to be placed into the course.

  First, create the rule applying to all majors. Second, create the rule for the small range of majors. Because this rule will specify the majors, it will override the first rule. So even though the first rule is written to apply to all majors, it will not in this case. Finally, for the major where you do not want students placed, create a rule with a condition that cannot possibly happen, such as **B1 > 10**. This will ensure that no students will be placed if they have this major. (**B1 > 10** is impossible because background questions may have no more than 10 response options.)

You should now return to the **Placement** section of the **SYSTEM OPERATION** chapter on page 53 where you can put to use what you have learned here.

SYSTEM BACKUP PROCEDURES

Backing Up Your Software

When you receive your CPMS software, you should immediately make copies of it. Then place the originals in a secure place and use only the copies from then on. Should the copies become damaged, you should then prepare another copy. In the following procedure it is **critical** that the correct disks are used:

- ☐ Use three blank disks (two for the system, one for the utility update, if supplied). These need not be formatted, but it would be best if they were. Use any type of floppy disk your computer system can read. These disks are referred to as the "target" disks.
- ☐ With **each** of the original disks, perform one or the other of the following steps:
  - ☐ If you have two floppy disk drives, insert the original software disk (the source disk) in drive A (usually on the left or top), and the disk to which you will copy the software (the target disk) in drive B (usually on the right or bottom). Type *DISKCOPY A: B:* at your DOS prompt. Make sure you type the spaces shown. Press [ENTER]. The information on the disk in drive A will be copied to the disk in drive B.
  - ☐ If you have one floppy disk drive, insert the original software disk (the source disk) and type *DISKCOPY A: A:* at the DOS prompt. Make sure you type the spaces shown. Press [ENTER]. Follow the instructions displayed. You may need to switch the original source disk and the target disk to which you are copying the software more than once until all the files are copied. A message will prompt you to do this. Be sure to switch the disks when prompted.

- ☐ Label the copies exactly as the original disks are labeled, except also include the words **backup copy**.
- ☐ Immediately place the original disks in a safe place.

Backing Up Your Data Files

This can be the most critical step you ever take with your system. ***ASK THOSE WHO HAVE LOST CRITICAL DATA AND DID NOT HAVE APPROPRIATE BACKUPS!!*** Always ask yourself what you would do if you lost all the data that you use to place your students into courses. It is just as bad as losing all of your paper records to a fire.

As you use CPMS, you will probably enter large amounts of data such as student information, course codes, placement rules, advisor codes, advisement text, background questions, and major field codes. You should set up a procedure by which you **backup your files at least every time you add or modify information on the system**. It is best to backup the entire directory in which you installed CPMS. In this manner, you will backup not only the data you have created, but other important files in the directory. Further, you will not need to know the actual names of the files. Each time you backup the disk(s), they should be labeled with the date. You should also retain all paperwork containing the data you entered into the system. Then, if you have a system failure and need to restore your files from your last backup, you have a way to reenter the information you entered since that backup.

The following procedure assumes that you will do your backups using floppy disks. If you use another procedure, such as backing up to tape, follow the procedure outlined in your user manual for that software or hardware.

- ☐ Have available a supply of **formatted** disks (see the **APPENDIX** for how to format disks). You may not need all of these additional disks, but in case you do you cannot stop the backup procedure to format additional disks on your computer. (You can format disks on another computer, however.) You will be prompted to insert as many additional disks as are needed until all of your data are backed up. See the **APPENDIX** on page 121 or your DOS manual for the proper procedure.

☐ You should keep a rotating backup. For example, assume you do a backup each day of the week. Have a set of, say, five disks labeled Monday, another set labeled Tuesday, etc. The price of 25 disks is far less than the price you will pay for being unprepared. You may need considerably fewer disks if your data files are not voluminous. Start with ten disks for the first backup and this will let you know how many you need for each subsequent backup. Should you have a hard disk failure, or other serious problem, you can restore the most recent backup after the problem has been corrected. Of course, you must be sure that you reenter all the necessary information between the time of the last backup and the time of the failure. You must develop a procedure to make sure you can do this quickly and easily.

The multiple sets of disks are recommended in the event a problem occurs and you do not realize it for a few days. In such a case, you can use the backup that you did before the problem occurred.

☐ Use the DOS **BACKUP** command to backup your data files. Follow the procedure in your DOS manual or a book on the subject. Insert one or more disks sequentially until the backup is complete. DOS will prompt you to insert the next disk, if needed. Number the disks sequentially because they must be restored in the same order, if this ever becomes necessary.

☛ Use the DOS **BACKUP** command instead of the DOS **COPY** command. Using **BACKUP** eliminates the need for you to know the actual file names.

☞ Any reliable, commercially available, backup software may be used instead of the DOS BACKUP command.

Restoring Your Data Files

Should you ever lose the data on your hard disk, you may need to restore your backed-up files once you correct the problem. Follow the general procedure below to do this.

- ☐ Be sure that the problem causing the loss of data has been resolved and that your hard disk is ready to accept the data.
- ☐ Use the DOS **RESTORE** command with your backups to restore all of your files. This command is just the opposite of the BACKUP command used to backup your data files. It moves the data files on your backup disks back to the hard disk. Make sure you insert the backup disks in the same sequence as when you backed them up. They should be numbered. Follow the procedure in your DOS manual or a book on the subject.
- ☐ Save the backup disks should you need them again.

PROBLEMS AND ERROR MESSAGES

Problems happen! People make mistakes. Power failures occur. Backups are done improperly. Software has "bugs" (**ALL** software has bugs). So you need methods to recover from, or correct, these problems. We have tried to consider possible situations that can arise and present them to you here. With experience, you will be able to recover from most problems you have. First look through the items below. Then look at the manual. Asking other knowledgeable people is always a good idea because you can actually become too close to a problem to see the solution. If all else fails, contact Educational Testing Service at (609) 734-5782 or write to the address shown on page 2 for assistance. If you call, please have as much information available as possible before making the call. This should include the following:

- The exact sequence of events during which the problem was encountered
- Any messages displayed on the screen when you experienced the problem
- Computer make and model
- Type and amount of disk storage
- Amount of internal memory (RAM)
- Type of monitor
- DOS version number
- Printer make and model

■ Typing *CPMS* does not cause CPMS to be executed.

☐ Note on paper whatever messages you see. This may be needed later should you have to call for assistance.

☐ Are you in the root directory? CPMS is executed when you are in the root directory of drive C by typing *CPMS* followed by the [ENTER] key.

☐ If you have just installed the system for the first time, and CPMS does not execute, try installing it again. You may not have installed it correctly.

■ **CPMS acts strangely, especially immediately after you have installed it.**

- ☐ There could be many reasons for this. First check to see if the FILES= and BUFFERS= portions of the CONFIG.SYS file have the proper minimum values (20 and 15, respectively). See the **APPENDIX** for a brief discussion of the CONFIG.SYS file.
- ☐ If this is not the problem, try running disk diagnostics, such as Norton Utilities™ or others. This may point out problems with your system or with the hard disk.
- ☐ Try reinstalling CPMS.

■ **CPMS seems to be loading, but all you see is a blank screen.**

- ☐ CPMS attempts to check whether you have a color or a monochrome monitor. There are certain hardware configurations that CPMS interprets as being color, when in fact they are not. In this case, it is trying to display colors on a monochrome monitor. Although you can not see it, the Main Menu is being displayed. Press [Esc], then [ENTER]. You should see the DOS prompt.
- ☐ Now you can tell CPMS to run in monochrome mode. First, you will need to change to the subdirectory in which CPMS is installed. If you selected the default subdirectory during installation, it will be C:\CPMS. At the DOS prompt, type *CD\CPMS* and then press [ENTER].
- ☐ Type *CPMSMAIN /M* and press [ENTER]. (Be sure to include the space before the slash.) The Main Menu should now appear in black and white when the system is run.
- ☐ You will need to do this only once. To run CPMS again, follow the instructions on page 33.

■ **CPMS unexpectedly exits to DOS with a Proc (procedural error) at the top of the screen.**

- ☐ This may be caused by insufficient memory (RAM) in your computer. CPMS requires a minimum of 640 K of main memory.

■ **Printer stops functioning while printing.**

- ☐ If the printer stops working while printing reports, it is possible that data for one or more students may not appear on the report. This will depend on the printer type, why the printer stopped working (power failure, no more paper), etc. You should check to see that all records were printed.
- ☐ If you suspect you are missing data, it might be wise to reprint the report.
- ☐ If the system exited to DOS with a **Proc** error (procedural error) displayed on your CRT, simply reenter CPMS, and run the report again.

■ **When you try to run CPMS on a network, it either "freezes" or gives you an error message such as "File must be locked."**

- ☐ CPMS will not operate in a multi-user environment, due to the memory requirements of the network software. You may download CPTs data to a single workstation, but then must reboot without loading the network software in order to run CPMS.

■ **You obtain the message RUN ERROR or OPEN ERROR.**

- ☐ **RUN ERROR** might mean there is a lack of available memory or that the necessary COMMAND.COM file could not be located.
- ☐ **OPEN ERROR** might mean that too many files are open at once or that the CONFIG.SYS file contains incorrect information. The CONFIG.SYS file should contain the statement FILES = 20 (or more). Since the installation program will automatically increase values less than 20 to 20, the most likely error here is that too many files are open.
- ☐ If you are not already at the DOS prompt, reboot the system to get there.
- ☐ If the cursor has disappeared, type *MODE 80* and press [ENTER] to restore it.
- ☐ Type *CLS* and press [ENTER] to clear the screen.
- ☐ Check the CONFIG.SYS file to see if the statement FILES = 20 (or more) is present. (CONFIG.SYS is usually in the root directory of the C drive and can be examined by entering *C:*, pressing [ENTER], then entering *TYPE CONFIG.SYS* and pressing [ENTER].)
- ☐ Check the AUTOEXEC.BAT file to see if other programs are being loaded or if another menu is being loaded. This will not only cause less memory to be available for CPMS, but may be leaving too many files open and thus too few available for CPMS. AUTOEXEC.BAT must be modified appropriately.
- ☐ To avoid having to modify the AUTOEXEC.BAT file as in the previous step, try booting the computer using a DOS boot disk in drive A. First make sure that this disk contains the following statement in an AUTOEXEC.BAT file to ensure it will find the COMMAND.COM file on your C drive:

```
PROMPT $P$G
SET COMSPEC=C:\COMMAND.COM
```

The DOS boot disk must also contain a CONFIG.SYS file containing the statements:

```
FILES = 20
BUFFERS = 15
```

☞IMPORTANT: If you modify either AUTOEXEC.BAT or CONFIG.SYS, you must reboot the computer before running CPMS in order for these changes to take effect.

■ **CPMS loads satisfactorily, but a RUN ERROR appears when loading CPTs data.**

- ☐ Disk 3 in your installation set contains a utility program to resolve this problem. Exit CPMS, or reboot if necessary. Change to the CPMS subdirectory by entering *CD\CPMS* and pressing [ENTER].
- ☐ Insert Disk 3 in drive A:. Type the statement *COPY A:LOADCPTS.EXE* and press [ENTER].
- ☐ While still in the CPMS subdirectory, type *LOADCPTS* and press [ENTER].
- ☐ Repeat the last step for each CPTs file to be loaded.

GLOSSARY

Abort — To end a given process. For example, you can abort the installation of the CPMS software.

Accuplacer™ — A system of the College Board that integrates CPMS with two other components: CPTs (Computerized Placement Tests) and PRS (Placement Research Service). Additional components and tests are planned or are in development.

Action — The item in a placement rule that indicates if this is the last line, or how to interact with the following lines. Valid Action items are END, AND, OR, +, -.

Advisement Text — Text you define that will appear on each student's individual report.

Advisor Codes — Codes defining advisors. These are associated with an advisor title, name, and address.

AND action value — The action value in a placement rule used to specify that both the preceding condition and the next condition must be true.

Arrow Keys — The ←, ↑, →, and ↓ keys on your keyboard used to scroll around your screen.

ASCII — A code where each letter, number, and other character is represented in the computer by a unique code. The Flat File you create uses this code and is therefore an ASCII file.

AUTOEXEC.BAT — This file is optional when you use CPMS. When created, it normally exists in the root directory of drive C: (C:\). You can create this file using the procedures in the **APPENDIX**.

Background Questions — Questions answered by the student, such as parents' education, etc. Used in conjunction with other information to place the student into courses.

Backup	To copy information from your disks to others disks in case you ever have a problem with the original. Also, to copy database files from your hard disk to backup disks in case the files on your hard disk become damaged. This process is **essential!**
Boot	The process of loading the operating system into the computer to prepare your system for use.
Bug	An error in a software program.
CGP	The list of major field curriculum codes used in the College Board's Comparative Guidance and Placement Testing Program. These will generally be used by colleges with programs leading to the associate's degree. See SDQ and NONE below.
Clock	A timer inside the computer used to maintain the time and date. A clock is needed only if you wish to see this information displayed on your screens.
Color	The hue on color monitors. You can modify these. Also refers to a particular kind of monitor, i.e., a color monitor.
Condensed Mode	The operation of a printer whereby it prints smaller-than-usual characters so that more characters can be printed per line.
CONFIG.SYS	A file in the root directory in drive C: (C:\) necessary for CPMS to run. It is automatically created or modified by the installation process.
Course Code	The code number you assign to a course so that students may be placed into it.
CPMS	Computerized Placement Management Software.
CPTs	Computerized Placement Tests. The Computer-Adaptive testing system of the College Board. Used as input to CPMS. The assessment component of ACCUPLACER.

CRT — The device with a screen used by the computer to display information. Synonymous with display or monitor.

Current Item — The item highlighted on your screen, such as a menu selection.

Cursor — The blinking bar or square that appears on your screen to indicate your current position.

Database — A group of data comprising information you need. There are several databases used by CPMS. The student database is only one of them. Others are major codes, advisor codes, courses, etc.

Default — A set of information that comes with your software such as default background questions, major codes, etc. Or, the value that the system assumes for an entry, if you do not enter one.

Delete — Elimination of information from your computer disk. Often, it is first "flagged" for deletion. This makes it unavailable for you, and it is actually deleted only later when the files are reindexed.

Directory — An area of your hard or floppy disk used to contain data or software. For example, the CPMS directory is created automatically by CPMS when you install it. In this manual, the word "directory" and "subdirectory" are often used interchangeably.

Display — See CRT above.

DOS — Disk Operating System. The software used by your computer to control all internal operations and interface with you or your programs.

DOS Prompt — The symbol you see shortly after you turn your computer on, usually the **C:\>**. May vary depending on how your system is configured. When you see the prompt, you can give various commands to the system, including starting execution of the CPMS software.

Duplicate Record — A record that is identical to another record. A CPTs score record is a duplicate record if it matches another record in student name, test date, and test code.

Edit — To change or modify.

Extension — The part of a DOS file name following the period. For example, ABC.XYZ has a file extension of XYZ. The extension is optional, and can consist of one to three characters.

Field — A portion of a record representing data. For example, the Major Code field is displayed on the student screen.

Flat File — A file containing student information that you can create with CPMS. This file can serve as input to other software, including PRS. The file layout, useful for programmers, is in the **APPENDIX**.

Floppy Disk — A magnetic storage medium to hold software and data. Your software comes supplied on either the 5-1/4 inch or 3-1/2 inch type.

Floppy Disk Drive — The device that reads from, and writes to, floppy disks.

Format — The process of electronically preparing a disk so that its full capacity may be used to store information.

Function Keys — Keyboard keys, each of which has a special function in CPMS. Always shown in brackets [ ] in this manual (but not on the keyboard). For example, [F10] is always used to save data to disk. The function keys are usually displayed on keyboards as **F10**.

Graphics Card — The electronic circuit board inside the computer that permits your screen to display graphic information properly.

Hard Disk — A storage device of your computer on which software and data are stored. Can be internal or external to the computer.

Help — Information displayed on your screen to assist you in operating the system. Accessed by pressing [F1].

Highlight	Selecting an option on a screen by making it stand out from the others.
Index Files	Files that act as an index to locate records in the other databases. The index files are created automatically when the system is installed. Also, the information referred to in Reindex (below).
Installation	The process of placing your software on your computer's hard disk so that you can use it.
Label	A description you assign to items such as placement categories, etc.
Log File	The computer file containing test score data from CPTs (Computerized Placement Tests) software. This information is used by CPMS to determine placements.
Maintenance	One of the Main Menu options. Contains selections used to add, delete, or maintain data in your system, such as courses.
Major	The academic area of study for the student. Also referred to as major field. See CGP and SDQ, which are the major field databases you can install with the system, or you can create an institutionally specific major field table.
Major Code	A numeric code defining a major.
Menu	A series of selections appearing on your screen. You choose one of these to perform a desired function.
Message	Information displayed to inform you about needed information or a problem.
Monitor	See CRT above.
Monochrome	A monitor that can only display in a single color in addition to black.
NONE	The parameter to select at installation if you want to define your own major field database and background questions database.

Operator — An item used in a placement rule to compare to a value. Valid operators are =, <, >, <=, >=, <>.

OR action value — The action value in a placement rule used to specify that either the preceding condition or the next condition must be true.

PASS — School to College Placement Articulation Software Service.

Placement — The process of recommending the placement of students into courses based on information you supply. See Rules.

Placement Rules — The rules you tell CPMS to follow to recommend placing students into courses.

Printer — A device that creates printed reports from data sent to it by the computer.

PRS — Placement Research Service. Provides additional information to you based on data created by CPMS. The research and analysis component of Accuplacer.

Pull-down Menu — A list of options that appears after you select a topic. For example, selecting REPORTING from the Main Menu pulls down a list of five options showing five different reports you can select.

Record — A collection of information about a particular topic. For example, a student record will contain test scores, etc.

Reindex — The modification of information in the system files that are used to access your databases. This may need to be done if there is a problem with your computer system.

Report — A document generated by the software that can be either printed on your printer or displayed on your screen.

Root Directory — The first, or highest-level directory on any drive. The CONFIG.SYS and AUTOEXEC.BAT files are normally located in this directory.

Rules The parameters you set up in CPMS to place students into courses based on test score data and other information.

Save The process of permanently storing the current record or information. This is usually done after modifying it or adding it. If data are entered but not saved, they will not be available the next time you try to access them.

Screen Your cathode ray tube or what displays on it. Screens are often shown in this manual as dark boxes surrounding the material that is displayed.

SDQ These are the major curriculum fields used in the Student Descriptive Questionnaire of the College Board's Admission Testing Program. They will generally be used by colleges with programs of study leading to the bachelor's degree. See CGP and NONE above.

Seamless Serial Testing The CPTs system capability to select automatically the appropriate initial and subsequent mathematics tests for an individual based on criteria set by the user.

Search The process of scanning through your data on the system files until one or more records that meet your criteria are located.

Setup String Information used to inform your printer how to print.

Software The instructions (programs) the computer uses to perform your application.

Sound The noise you hear from your computer when you do something incorrectly or when the software wants to alert you to something.

Standard Set The background questions that come with your CPMS software. You may change, delete, or add to these.

Stem A background question.

Subdirectory — An area of your hard or floppy disk used to contain data or software. For example, the CPMS directory is created automatically by CPMS when you install it. In this manual, the word "subdirectory" and "directory" are often used interchangeably.

Supplemental — Additional information such as supplemental questions that you define.

System — A series of programs and files that together perform a group of functions. Your CPMS system allows you to obtain recommended placements based on rules that you create.

Tutorial — A set of instructions designed to familiarize you with all of the major functions of CPMS. Uses the sample log file found on installation Disk 1.

User Friendly — A system that is intuitive and easy to use.

Value — The number in a placement rule against which a variable, such as a test score or the answer to a background question, is compared.

Weight — The value by which to multiply the Test Score, Background Answer number, or Supplementary Data value in a placement rule before comparing it with the VALUE.

Width — The number of columns your printer will print.

APPENDIX

Condensed Background Questions and Answers

CPMS uses abbreviated versions of the standard background questions and answers used in CPTs. These appear below. The full text of these questions and answers appear in the following section. All questions appear in **bold** and answers are bulleted.

1. Years studied English in high school

- 0: 1
- 1: 2
- 2: 3
- 3: 4
- 4: More than 4
- 5: None
- 6: Omit

2. Years studied mathematics in high school

- 0: 1
- 1: 2
- 2: 3
- 3: 4
- 4: More than 4
- 5: None
- 6: Omit

3. Studied algebra in high school

- 0: Yes
- 1: No
- 2: Omit

4. Years since last mathematics course

- 0: Less than 1
- 1: 1 to 3
- 2: 4 to 6
- 3: 7 or more
- 4: Omit

5. Sex

- 0: Female
- 1: Male
- 2: Omit

6. Self description

- 0: Native American, American Indian, Alaska Native
- 1: Black or African American
- 2: Mexican American or Chicano
- 3: Puerto Rican
- 4: Other Hispanic, Latino, Central Amer, South Amer
- 5: Asian or Pacific American
- 6: White (non-Hispanic) or Caucasian
- 7: Other
- 8: Omit

7. English first language

- 0: Yes
- 1: No
- 2: Omit

8. Disabling condition

- 0: None
- 1: Blindness or other visual impairment
- 2: Deafness or other hearing impairment
- 3: Paraplegia
- 4: Learning disability
- 5: Other neurological or orthopedic impairment
- 6: Other
- 7: Omit

9. Father's education

- 0: Grade school or less
- 1: Some high school
- 2: High school diploma or equivalent
- 3: Business or trade school
- 4: Some college
- 5: Associate degree
- 6: Bachelor's degree
- 7: Some graduate or professional school
- 8: Completed graduate or professional school
- 9: Omit

Mother's education

- 0: Grade school or less
- 1: Some high school
- 2: High school diploma or equivalent
- 3: Business or trade school
- 4: Some college
- 5: Associate degree
- 6: Bachelor's degree
- 7: Some graduate or professional school
- 8: Completed graduate or professional school
- 9: Omit

Full Text of Background Questions and Answers

The complete text of the questions and answers, as they are used in CPTs, appear below. All questions are in **bold** and answers are bulleted:

What is the total number of years you studied English in high school (grades 9-12)? Count less than a full year of English as a full year, but do not count a repeated year of the same course as an additional year of study.

- One year or the equivalent
- Two years or the equivalent
- Three years or the equivalent
- Four years or the equivalent
- More than four years or the equivalent
- I did not take any courses in English
- Omit

What is the total number of years you studied mathematics in high school (grades 9-12)? Count less than a full year of mathematics as a full year, but do not count a repeated year of the same course as an additional year of study.

- One year or the equivalent
- Two years or the equivalent
- Three years or the equivalent
- Four years or the equivalent
- More than four years or the equivalent
- I did not take any courses in mathematics
- Omit

Did you study algebra for at least one semester in high school?

- Yes
- No
- Omit

How long has it been since you have taken a mathematics course or other formal mathematics training?

- Less than one year
- One to three years
- Four to six years
- Seven or more years
- Omit

What is your sex?

- Female
- Male
- Omit

How do you describe yourself?

- Native American, American Indian, or Alaska Native
- Black or African American
- Mexican American or Chicano
- Puerto Rican
- Other Hispanic, Latino, Central American, or South American
- Asian or Pacific American
- White (non-Hispanic) or Caucasian
- Other
- Omit

Is English the first language you learned?

- Yes
- No
- Omit

What disabling condition do you have, if any, that might affect the usefulness of your test scores as measures of your skills? (Select only one.)

- None
- Blindness or other visual impairment
- Deafness or other hearing impairment
- Paraplegia
- Learning disability
- Other neurological or orthopedic impairment
- Other
- Omit

What is the highest level of education completed by your father or male guardian?

- Grade school or less
- Some high school
- High school diploma or equivalent
- Business or trade school
- Some college
- Associate degree
- Bachelor's degree
- Some graduate or professional school
- Completed graduate or professional school
- Omit

What is the highest level of education completed by your mother or female guardian?

- Grade school or less
- Some high school
- High school diploma or equivalent
- Business or trade school
- Some college
- Associate degree
- Bachelor's degree
- Some graduate or professional school
- Completed graduate or professional school
- Omit

CPMS System Limits

CPMS limits appear below. If no limit is specified, you are limited only by the capacity of your hard disk. The total rules are for those actually entered regardless of how many of these have been deleted.

Students	No limit*
Advisors	No limit*
Major codes	0000-9999
Background Questions (stems)	20
Background Question Answers	10 per question (0 to 9)
Rules (total entered)	9999
Lines Per Rule	30
Courses	999
Course Name	10 alphanumeric characters
Flat File Name	First 8 characters entered

Flat File Layout

The flat file created by CPMS when you use the **STUDENT MENU**'s **Create Student Flat File** option can be used for any desired purpose. For example, you can prepare the information from CPMS for use with other computer systems such as the Placement Research Service. The record layout for the flat file appears below. The file consists of variable-length records, the size of which depends on the number of test scores for each student. All fields have fixed lengths and are separated by commas:

Last name	20	
First name	20	
Middle initial	1	
ID	9	
Birthdate	8	(MM/DD/YY)
Major code	4	
Advisor code	4	
Background	20	

* Limited only by the capacity of your hard disk.

Supplementary data 1	4	(99.9)
Supplementary data 2	4	(99.9)
Supplementary data 3	4	(99.9)
Supplementary data 4	4	(99.9)
Supplementary data 5	4	(99.9)
Supplementary data 6	4	(99.9)
English placement 1	3	
English placement 2	3	
English placement 3	3	
Reading placement 1	3	
Reading placement 2	3	
Reading placement 3	3	
Math placement 1	3	
Math placement 2	3	
Math placement 3	3	
Other 1 placement 1	3	
Other 1 placement 2	3	
Other 1 placement 3	3	
Other 2 placement 1	3	
Other 2 placement 2	3	
Other 2 placement 3	3	
Other 3 placement 1	3	
Other 3 placement 2	3	
Other 3 placement 3	3	
English grade	4	
Reading grade	4	
Math grade	4	
Other 1 grade	4	
Other 2 grade	4	
Other 3 grade	4	
English course taken	3	
Reading course taken	3	
Math course taken	3	
Other 1 course taken	3	
Other 2 course taken	3	
Other 3 course taken	3	

Each test score will be added to the end of the record. These will be sorted by test date and test number:

Test date	8	(MM/DD/YY)
Test number	1	
Score	5	(999.9)
Standard error	4	(99.9)
Percentile	3	

CONFIG.SYS

This is a system file normally in the root directory of your C drive. When you install CPMS, the installation program checks to see if CONFIG.SYS exists. If it does not, it will automatically create it. If it exists, but the numbers following the **BUFFERS=** and **FILES=** are less than the minimum required by CPMS, these numbers will automatically be increased. If these values are equal to, or more than the minimum required, they will not be changed. None of this will be apparent to you, and this information is included in the **APPENDIX** for information only. The file will contain the following two lines, where 15 and 20 are the minimum requirements for CPMS. Note, you can use either upper or lowercase:

BUFFERS=15
FILES=20

AUTOEXEC.BAT

This is a file that is automatically "executed" every time you turn on your computer. CPMS is placed into a directory that you specify when you install it. In order to use CPMS, you must first go to the correct drive and directory you specified when you installed it, or to the root directory of drive C (C:\). Although this is a very minor inconvenience, some users wish to merely type in *CPMS* and press [ENTER] from wherever the are in the system. You can do this by making a small modification to AUTOEXEC.BAT. To do this, you must use a text editor. This resembles a word processor that enables you to modify files such as this one. Because so many editors exist, each one cannot be explained. You can even use any word processor that handles ASCII files. Another possibility is EDLIN, a utility that is supplied in DOS and described in the DOS manual.

If AUTOEXEC.BAT does not already exist, you can create it with any of the above. If it already exists, you can modify it. You must add (or modify) a line that includes the following line (you can use either upper or lowercase):

PATH=C:\X;

The line must appear exactly as shown above, including all punctuation and no spaces. However, in place of X, substitute the directory where you installed CPMS. For example, it might look like **PATH=C:\CPMS;** or even **PATH=D:\CPMS\TEST;**. If a PATH statement is already in the AUTOEXEC.BAT file, just insert the **C:\X;** portion after any semicolon in the

line. NOTE: AUTOEXEC.BAT may contain a number of other lines. You need only be concerned with the PATH line.

You must reboot your computer in order to make this change take effect. After that, merely type *CPMS* no matter what DOS prompt appears on your screen. CPMS will execute normally.

Formatting Floppy Disks

To make backup copies of CPMS, you will need to format two 5-1/4 inch or 3-1/2 inch floppy disks. Formatting a disk will erase any data stored on that disk. Start from any DOS prompt. Merely insert the disk into drive A and close the door latch. Type ***FORMAT A:*** and press [ENTER]. Be absolutely certain you type this exactly as it is. Typing anything else might cause a problem. Before pressing [ENTER], make sure you have typed ***FORMAT A:*** .

The disk will take a minute or two to format. You will hear various sounds coming from the floppy disk drive. This is normal. After formatting is completed, you will get a message asking if you wish to format another disk. Make sure you label the formatted disk appropriately.

Deleting Files

Occasionally, you may wish to delete a file from your hard disk or from a floppy disk. ***BE ABSOLUTELY CERTAIN YOU KNOW WHAT YOU ARE DOING BEFORE ATTEMPTING THIS!*** Once you have deleted a file, you can no longer retrieve it except under special circumstances.

To delete a file, go to the directory where the file exists. To do this, start from any DOS prompt, enter ***C:*** and then press [ENTER]. If your directory is in any other drive, enter that drive instead. For example, if the file you want to delete is in drive D, then type ***D:*** and press [ENTER]. This will place you in the desired drive.

Now type ***CD\x*** and press [ENTER]. Do not actually type x. In place of x, type the directory name. For example, if the file you want to delete is in drive C and directory CPMS, type ***CD\CPMS*** and press [ENTER]. Then, type ***DELETE a.b*** and press [ENTER]. Note that ***a.b*** is the name of the file (***b*** is the file extension).

CGP Major List

Major Codes and Major Names

0000 Omitted

112 Child Care/Development

116 Dentistry/Pre-Dentistry

117 Dental Technician/Assistant

118 Dental Hygiene

119 Dietetics/Nutrition

150 Medical Office Assistant

151 Medical Lab Technology Asst.

152 Medical Records Technology

153 Medicine/Pre-Medicine

154 Mental Health Technology

155 Mortuary Science

156 Nursing (RN, Psychiatric)

157 Nursing (Vocational, Practical)

160 Optometry/Optical Technology

164 Pharmacy

165 Physical Ed./ Recreation/ Rehabilitation

167 Prosthetics

168 Psychology/Behavioral Science

172 Radiologic (X-Ray) Technology

176 Social Service/Welfare

177 Surgical Assistant

180 Therapy (Inhalation, Phys, Occup)

185 Urologic Assistant

188 Veterinary Science

198 Other Health Fields

202 Administration - Management

203 Accounting

204 Advertising/Marketing

211 Banking/Finance

212 Business (1-2 year terminal)

213 Business Administration (transfer)

214 Business Data Processing

215 Keypunch Operator

216 Unit Records Operator

217 Computer Operator

218 Clerical - General Office

219 Distributive Education

222 Economics

235 Hotel, Restaurant Mgmt, Food Service

237 Industrial Relations

239 Insurance

252 Merchandising/Sales/Retailing

264 Personnel

272 Real Estate

276 Secretarial Science (General)

280 Transportation and Commerce

283 Secretarial (Executive)

284 Secretarial (Legal)

285 Secretarial (Medical)

286 Secretarial (Technical)

298 Other Business Fields

302 Agri-Business

304 Agriculture

305 Agronomy/Food Production

306 Animal Husbandry

315 Conservation

328 Forestry

331 Game/Fisheries Management

335 Horticulture

345 Landscape Technology

364 Land/Park Management

398 Other Agriculture

402 Airline Steward/Hostess/Flight Attendant

412 Criminology

427 Fire Science

439 International Relations

447 Law/Pre-Law

464 Police Science/Law Enforcement

465 Political Science/Government

467 Public Welfare Technology

480 Transportation

498 Other Public Service-Law-Govt

503 Architecture

504 Art

505 Applied Arts

513 Commercial/Advertising Art

527 Fashion Design/Illustrating

529 Fine Arts

531 Graphic Arts/Technical Illustrator

539 Interior Decorating/Design

551 Modeling

555 Music

564 Photography

595 Speech/Drama/Theatre Arts

598 Other Fine/Applied Arts

611 Business Education

625 Education

626 Education (Primary, Elementary)

627 Education (Secondary)

628 Education (Teacher Aide)

629 Education (Vocational-Industrial)

630 English

631 Foreign Language

637 History

638 Humanities

642 Journalism

647 Language Arts

648 Liberal Arts & Science (Humanities)

649 Library Science

650 Liberal Arts & Science (Science-Math)

672 Religion/Philosophy

698 Other Liberal Arts

712 Child Care

713 Clothing & Textiles

734 Home-Career Management

735 Home Economics

798 Other Home Economics

803 Aeronautics/Space

805 Anthropology

812 Bacteriology

813 Biology/Microbiology

814 Botany

817 Chemical Engineering

818 Chemistry

820 Civil Engineering

822 Computer Science

828 Environmental Science/Ecology

830 Electrical Engineering

831 Engineering/Pre-Engineering

837 Geography/Earth Science

840 Industrial Engineering

852 Marine Science/Oceanography

853 Mathematics

858 Natural Science

859 Physical Science

860 Physics

861 Physiology

880 Science/Pre-Science

882 Social Science/Sociology

897 Zoology

898 Other Science

903 Agricultural Engineering Technology

904 Air-Cond/Refrig/Htng Technologies

905 Aircraft Mech/Aviation Maint/Aero Techs

906 Appliance Repair

907 Architectural Engineering Technology

908 Auto Body Repair

909 Automotive Mechanics Technology

911 Cabinet/Furniture Making

913 Chemical Engineering Technology

914 City Planning/Urban Development

915 Civil Eng. Tech/ Surveying/Hwy Tech

916 Communications Technology

917 Construction/Building Trades

918 Cosmetology

919 Data Processing Servicing/Repair

920 Diesel Mechanics

921 Drafting/Desgn Tech (Mech Architect Ind)

924 Electrical Engineering Tech/Electricity

925 Electronics Engineering Technology

928 Engineering Technology (General)

929 Fabric Maintenance/Dry Cleaning

932 Flight Trng/Commercial Pilot/Flight Tech

933 Food Technology

934 Gas Engineering Technology

936 Industrial Electronics Technology

937 Industrial Engineering Technology

938 Instrumentation Technology

946 Laboratory Assistant (Technical)

950 Machine Shop Technology

951 Machine Design

953 Marine Science Technology

954 Masonry

955 Mechanical Engineering Technology

956 Mechanical Technology (General)

962 Plumbing

964 Printing Technology

970 Radiation Technology

972 Radio/TV Technology

980 Sheet Metal/Plastics Technology

981 Small Engine Repair

982 Technical/Pre-Technical Curriclm
983 Textiles Engineering Technology
984 Tool/Die Technology
985 Transportation Technology
995 Metalwork/Welding
996 Woodworking/Carpentry
998 Other Trades, Technologies
999 Undecided

SDQ Major List

Major Codes and Major Names

0000 Omitted

100 Agriculture and natural resources

101 Agriculture business

102 Agriculture economics

103 Agriculture & farm mgmt (farm and ranch)

104 Agriculture forestry and wildlife techs

105 Agronomy (field crops and crop mgmt)

106 Animal sciences

107 Conservation

108 Dairy science

109 Equestrian science

110 Fish and wildlife management

111 Food science

112 Forestry

113 Horticulture

114 Natural resources management

115 Ornamental horticulture

116 Preveterinary or veterinary medicine

117 Poultry science

118 Soils science

130 Architecture and environmental design

131 Architecture

132 Architectural technology

133 City community & regional planning & dev

134 Environmental design

135 Interior design

136 Landscape architecture

137 Urban design

140 Arts: visual and performing

141 Applied design

142 Art (painting, drawing, sculpture)

143 Art history and appreciation

144 Cinematography/film

145 Dance

146 Dramatic arts

147 Graphic arts and industrial design

148 Instrumental music (performance)

149 Music (composition, theory)

150 Music history and appreciation

151 Photography

152 Vocal music (performance)

170 Biological (life) sciences

171 Anatomy

172 Bacteriology

173 Biochemistry

174 Biology

175 Biometrics and biostatistics

176 Biophysics

177 Botany

178 Cell biology (cytology, cell physiology)

179 Ecology and environmental science

180 Embryology

181 Entymology

182 Genetics

183 Histology

184 Marine biology

185 Microbiology

186 Molecular biology

187 Neurosciences

188 Nutritional sciences

189 Pathology, human and animal

190 Pharmacology, human and animal

191 Physiology, human and animal

192 Plant pathology

193 Plant pharmacology

194 Plant physiology

195 Radiobiology

196 Toxicology

197 Zoology

200 Business and commerce

201 Accounting

202 Advertising

203 Banking and finance

204 Business economics

205 Business management and administration

206 Business statistics

207 Fashion merchandising

208 Hotel/motel and restaurant management

209 Insurance and risk management

210 International business

211 Investments and securities

212 Labor and industrial relations

213 Management information systems

214 Marketing

215 Operations research

216 Personell management

217 Real estate

218 Recreation, tourism and travel

219 Transportation and commerce

250 Communications

251 Advertising

252 Business and technical writing

253 Film

254 Journalism (printed media)

255 Public relations

256 Radio and television (broadcasting)

300 Computer & information sciences & tech

301 Computer programming

302 Computer science

303 Data processing

304 Data systems repair

305 Information systems and sciences

306 Microcomputer software

307 Systems analysis

350 Education

351 Adult and continuing education

352 Agricultural education

353 Art education

354 Bilingual and bicultural education

355 Business education

356 Child development and nursery education

357 Curriculum and instruction

358 Driver and safety education

359 Education of the culturally disadvantaged

360 Education of the deaf & hearing impaired

361 Education of the emotionally handicapped

362 Education of exceptional children

363 Education of the gifted and talented

364 Education of the mentally handicapped

365 Education of the physically handicapped

366 Education of the visually handicapped

367 Educational administration

368 Educational statistics and research

369 Educational testing evaluation & measrmt.

370 Elementary education

371 English education

372 Health education

373 Higher education

374 Home economics education
375 Industrial arts vocational/tech education
376 Mathematics education
377 Marketing and distributive education
378 Music education
379 Pre-elementary education (kindergarten)
380 Physical education
381 Reading education(methodology &theory)
382 School Psychology
383 Science education
384 Secondary education
385 Social science education
386 Special education
387 Specific learning disabilities
388 Speech and hearing education therapy
389 Student counseling and personnel service
390 Teaching English as a foreign language
400 Engineering and engineering technologies
401 Aerospace, aeronautical, astronaut eng
402 Agricultural engineering
403 Architectural engineering
404 Bioengineering and biomedical engineering
405 Ceramic engineering
406 Chemical engineering
407 Civil construction & transportation eng
408 Computer engineering
409 Electrical engineering
410 Engineering and public policy
411 Engineering mechanics
412 Engineering physics
413 Engineering science
414 Environmental health engineering
415 Geological engineering
416 Geophysical engineering
417 Industrial engineering
418 Industrial laboratory technology
419 Instrumention technology
420 Materials engineering
421 Mechanical engineering
422 Mechanical engineering technologies
423 Metallurgical engineering
424 Mining and mineral engineering
425 Naval architecture and marine engineering
426 Nuclear engineering

427 Nuclear technology
428 Ocean engineering
429 Petroleum engineering
430 Plastics technology
431 Surveying and mapping sciences
450 Foreign languages and classical languages
451 African languages (non-Semitic)
452 Arabic
453 Classical languages, general
454 Chinese
455 Foreign languages, multiple emphasis
456 French
457 German
458 Greek, classical
459 Greek, modern
460 Hebrew
461 Indic languages (including Hindi & Sanskrit)
462 Italian
463 Japanese
464 Korean
465 Latin
466 Modern languages, general
467 Native American languages
468 Portuguese
469 Russian
470 Scandinavian languages
471 Slavic languages (other than Russian)
472 Spanish
473 General and interdisciplinary studies
481 General liberal arts and sciences
482 General studies
483 Biological and physical sciences
484 Engineering and other disciplines
485 Humanities and social sciences
486 Women's studies
500 Health professions and allied services
501 Chiropractic (DC or DCM degree)
502 Dental hygiene or assistance
503 Dental laboratory technology
504 Emergency/disaster sciences or technology
505 Environmental health
506 Hospital and health care administration
507 Medical asst or medical office asst tech
508 Medical laboratory technologies

509 Medical records technology and administration
510 Medical social work (medical & psychiatric)
511 Nuclear medicine and technologies
512 Nurse anesthetist
513 Nursing
514 Occupational therapy
515 Optometry
516 Osteopathic medicine (DO degree)
517 Pharmacy
518 Physical therapy
519 Physician's assistant
520 Podiatry or podiatric med. (Pod D or DP)
521 Predentistry - dentistry (DDS or DMD)
522 Premedical - medical (MD)
523 Preveterinary - veterinary medicine (DVM)
524 Public health
525 Radiologic technologies
526 Radiology and X-ray technology
527 Recreation therapy
528 Speech pathology and audiology
529 Sports medicine
530 Surgical technology

640 Home economics
601 Child development, care and guidance
602 Clothing and textiles
603 Consumer studies
604 Family relations
605 Foods and nutrition (includes dietetics)
606 Home decoration and home equipment
607 Institutional management
620 Language and literature
621 American literature
622 Classics
623 Comparative literature
624 Creative writing
625 English
626 English literature
627 Linguistics
628 Speech, debate, forensic science
640 Library and archival sciences
641 Archival science
642 Library assistant
643 Library science
644 Museum studies

650 Mathematics
651 Actuarial sciences
652 Applied mathematics
653 Mathematical and theoretical statistics
670 Military science
671 Aerospace science (Air Force)
672 Coast Guard science
673 Merchant Marine science
674 Military science (Army)
675 Naval science (Navy, Marines)
690 Philosophy, religion and theology
691 Philosophy
692 Religious education
693 Religious studies, theology
700 Physical sciences
701 Analytical chemistry
702 Astronomy
703 Astrophysics
704 Atmospheric sciences and meteorology
705 Chemistry, general
706 Earth science
707 Geochemistry
708 Geology
709 Geophysics and seismology
710 Inorganic chemistry
711 Metallurgy
712 Molecular physics
713 Nuclear physics
714 Oceanography
715 Organic chemistry
716 Paleontology
717 Planetary science
718 Pharmaceutical chemistry
719 Physical chemistry
720 Physics, general
800 Public affairs and services
801 City, community, & regional plan & dev
802 Community services, general
803 Criminal justice
804 Fire science or protection
805 Funeral services
806 International public and foreign service
807 Law enforcement and corrections
808 Parks and recreation management

809 Public administration

810 Safety administration

811 Social work

850 Social sciences and history, general

851 American history

852 Anthropology

853 Archeology

854 Child psychology

855 Clinical psychology

856 Criminology

857 Demography

858 Economics

859 European history

860 Experimental psychology

861 Geography

862 History, general

863 Industrial psychology

864 International relations

865 Political science or government

866 Prelaw - law (JD degree)

867 Psychology

868 Social psychology

869 Sociology

870 Area and ethnic studies

871 African studies

872 American studies

873 American Indian studies

874 Asian studies

875 Black studies

876 Hispanic American studies

877 Islamic studies

878 Jewish studies

879 Latin American studies

880 Mexican American studies

881 Middle Eastern studies

882 Pacific area studies

883 Russian and Slavic studies

884 Spanish American studies

950 Technical and vocational

951 Air transportation technologies

952 Flight attendant

953 Automotive mechanic

954 Aircraft mechanic

955 Construction trades

956 Carpentry and woodworking

957 Cosmetology

958 Culinary arts

959 Drafting/engineering graphics

960 Electronics

961 Heating, air conditioning & refrigeration

962 Machine tool technology

963 Masonry (brick, cement, stone, etc.)

964 Plumbing, pipefitting, steamfitting

965 Precision metal work

966 Secretarial studies

999 Undecided

Sample Reports

This section contains the following sample CPMS* and CPTs reports:

- ☐ Individual Report
- ☐ Placement Roster (without test scores)
- ☐ Placement Roster (with test scores)
- ☐ Course Roster
- ☐ CPTs Score Roster
- ☐ CPTs Score Summary

* CPMS duplicates some of the score reports generated by the CPTs Reporting System. Therefore, depending on your institutional needs, you may be able to do all reporting through CPMS.

Individual Report

Acorn College
Spring 1990 Placement Report
==========

Name : CAIN, BETTY G. ID : 173-54-9011

Major : Undecided

Advisor :

This report contains your recommended placement assignments in English, reading, and mathematics for the spring, 1990 semester. These assignments are based on your placement test scores and your intended major field of study. You should schedule a meeting with your advisor before January 21 to discuss these assignments and to obtain answers to any questions you may have.

Recommended Placement
==========

English :	ENG 201	
Reading :		
Mathematics :	MATH 211	MATH 311
O-1 :		
O-2 :		
O-3 :		

Test Results - All Test Scores
==========

Test	Date	Score	SEM	Pctile
Algebra :	12/20/89	65.0	10.4	54
Arithmetic :	12/20/89	88.8	8.4	64
Reading :	12/20/89	94.0	7.3	67
Sentence Skills :	12/20/89	118.0	0.9	96
College Math :	12/20/89	62.0	8.1	49

Responses to Background Questions
==========
Years studied English in high school: 4
Years studied mathematics in high school: 3
Studied algebra in high school: Yes
Years since last mathematics course: Less than 1
Sex: Female
Self description: White (Non-Hispanic) or Caucasian
English first language: Yes
Disabling condition: None
Father's education: Some college
Mother's education: Bachelor's degree

Placement Roster (without test scores)

January 13, 1990
Page 1

Acorn College
Spring 1990 Placement Report

For : All Students
Sorted by: Last Name
Includes : No Scores

NAME	ID	ENGLISH	READING	MATH
BERTRAM, SHERMAN C.	290-34-8324	ENG 101		MATH 111
CAIN, BETTY G.	173-54-9011	ENG 201		MATH 211
				MATH 311
DAVIS, ELEANOR R.	349-98-4929	ENG 201		MATH 211
				MATH 311
EDWARDS, JOHN N.	348-95-9483	ENG 201		MATH 111
GARCIA, JAMES D.	894-83-9485	ENG 201	READ 099	MATH 211
				MATH 311
MADISON, SAMUEL F.	023-94-8305	ENG 201		MATH 211
				MATH 311
MEYERS, ELIZABETH S.	384-95-8396	ENG 201		
SIMS, ROBERT L.	735-93-8204	ENG 201		MATH 211
				MATH 311
SMITH, ROGER M.	245-84-3211	ENG 101		MATH 111
WILLIAMS, JOAN B.	534-39-4058	ENG 201		MATH 111

* Placement test score was deleted. Placements may not be current.

Placement Roster (with test scores)

Page 1

Acorn College
Spring 1990 Placement Report

For : Last Name from BERTRAM to EDWARDS
Sorted by: Last Name
Includes : All Test Scores

NAME	ID	ENGLISH	READING	MATH
BERTRAM, SHERMAN C.	290-34-8324	ENG 101		MATH 111

Test	Date	Score	SEM	Pctile
Arithmetic :	12/20/89	21.8	5.3	7
Reading :	12/20/89	77.1	8.8	39
Sentence Skills :	12/20/89	60.1	8.5	12

CAIN, BETTY G.	173-54-9011	ENG 201		MATH 211 MATH 311

Test	Date	Score	SEM	Pctile
Algebra :	12/20/89	65.0	10.4	54
Arithmetic :	12/20/89	88.8	8.4	64
Reading :	12/20/89	94.0	7.3	67
Sentence Skills :	12/20/89	118.0	0.9	96
College Math :	12/20/89	62.0	8.1	49

DAVIS, ELEANOR R.	349-98-4929	ENG 201		MATH 211 MATH 311

Test	Date	Score	SEM	Pctile
Algebra :	12/20/89	103.0	7.0	83
Arithmetic :	12/20/89	113.0	2.6	92
Reading :	12/20/89	115.7	1.6	99
Sentence Skills :	12/20/89	97.3	7.3	54
College Math :	12/20/89	83.0	7.7	76

EDWARDS, JOHN N.	348-95-9483	ENG 201		MATH 111

Test	Date	Score	SEM	Pctile
Algebra :	12/20/89	42.5	8.5	30
Arithmetic :	12/20/89	81.9	9.3	57
Reading :	12/20/89	93.7	7.3	67
Sentence Skills :	12/20/89	71.0	8.9	20

* Placement test score was deleted. Placements may not be current.

Course Roster

January 13, 1990
Acorn College
Spring 1990 Placement Report

COLLEGE BOARD COMPUTERIZED PLACEMENT TESTS (TM)

COURSE ROSTER FOR: MATH 211
SORTED BY: Last Name

NAME	ID
CAIN, BETTY G	173-54-9011
DAVIS, ELEANOR R	349-98-4929
GARCIA, JAMES D	894-83-9485
MADISON, SAMUEL F	023-94-8305
SIMS, ROBERT L	735-93-8204

Number of students: 5

CPTs Score Roster

Page 1

COLLEGE BOARD COMPUTERIZED PLACEMENT TESTS (TM)

ROSTER FOR: Acorn College
ROSTER OF : Total Right Scores
FOR : All Students
SORTED BY : Last Name
SCORE USED: Latest

STUDENT	ID	RC	SS	A	EA	CM
BERTRAM, SHERMAN C	290-34-8324	77	60	22		
CAIN, BETTY G	173-54-9011	94	118	89	65	62
DAVIS, ELEANOR R	349-98-4929	116	97	113	103	83
EDWARDS, JOHN N	348-95-9483	94	71	82	43	
GARCIA, JAMES D	894-83-9485	67	67	108	84	62
MADISON, SAMUEL F	023-94-8305	109	118	114	92	71
MEYERS, ELIZABETH S	384-95-8396	79	115		76	65
SIMS, ROBERT L	735-93-8204	116	118	118	109	92
SMITH, ROGER M	245-84-3211	65	43	80	32	
WILLIAMS, JOAN B	534-39-4058	120	118	56	43	39
NUMBER OF STUDENTS:		10	10	9	9	7

RC = Reading Comprehension
SS = Sentence Skills
A = Arithmetic
EA = Elementary Algebra
CM = College Math

CPTs Score Summary

COLLEGE BOARD COMPUTERIZED PLACEMENT TESTS (TM)

SUMMARY REPORT FOR: Acorn College
REPORT OF: Total Right Scores
FOR: All Students
SCORE USED: Latest

RANGE	READING	SENTENCE SKILLS	ARITHMETIC	ALGEBRA	COLLEGE MATH
116 - 120	3	4	1	0	0
111 - 115	0	1	2	0	0
106 - 110	1	0	1	1	0
101 - 105	0	0	0	1	0
96 - 100	0	1	0	0	0
91 - 95	2	0	0	1	1
86 - 90	0	0	1	0	0
81 - 85	0	0	1	1	1
76 - 80	2	0	1	1	0
71 - 75	0	1	0	0	1
66 - 70	1	1	0	0	0
61 - 65	1	0	0	1	3
56 - 60	0	1	1	0	0
51 - 55	0	0	0	0	0
46 - 50	0	0	0	0	0
41 - 45	0	1	0	2	0
36 - 40	0	0	0	0	1
31 - 35	0	0	0	1	0
26 - 30	0	0	0	0	0
21 - 25	0	0	1	0	0
16 - 20	0	0	0	0	0
11 - 15	0	0	0	0	0
6 - 10	0	0	0	0	0
1 - 5	0	0	0	0	0
NUMBER OF STUDENTS:	10	10	9	9	7
MEAN SCORE:	93.7	92.6	86.8	71.8	67.7
STANDARD DEVIATION:	20.9	29.3	31.9	27.9	17.0

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